WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: SPARTA CART-TAPE DECK Serial No. 800-C-RP Purchase Date: SEPT. 1967

Date Serviced	Reason	Engineer	Work Done	Remarks
2-15-71	NO HIGHS INT. STOP	P BURG & JWT	ALIGNMENT - USING COLIMETER IV + AZIM. TAPE — + CLEAN	SOUND IS MUCH BETTER

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: SPARTA PLAYBACK DECK Serial No. 800-C-P Purchase Date: DEC. 1967

Date Serviced	Reason	Engineer	Work Done	Remarks
9/29/68	not wking	Shanahan	1. cables repaired at back of unit 2. repair broken wire at board input.	cables should be shield
2-15-71		P BURG & SWT	ALIGNMENT & CLEAN	

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: PATCH BOARD Serial No. _____ Purchase Date: _____

Date Serviced	Reason	Engineer	Work Done	Remarks

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: Power Supply & Pre-Amps Serial No. TPA-1 Purchase Date: _____

Date Serviced	Reason	Engineer	Work Done	Remarks

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: RCA VOLT-OHMYST Serial No. WV-95-A Purchase Date: _____

Date Serviced	Reason	Engineer	Work Done	Remarks

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WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: OSCILLOSCOPE Serial No. ES-150 Purchase Date:

Date Serviced	Reason	Engineer	Work Done	Remarks

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: AM XMTR (ALLEN) Serial No. 660801-1 Purchase Date: 1/8/66

Date Serviced	Reason	Engineer	Work Done	Remarks
6/3/68	PREVENTIVE	MOORE & TAYLOR	XMTR PULLED FOR SERVICE LINE LEVEL CHECKED	-5 db line level at Allen
6/29/68	P	Moore	tune-up	driver & final tuned into 'escape
9/10/68	—	Shanahan	installation & tune-up	good coverage

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: AM XMTR PEARSONS Serial No. 660801-3 Purchase Date: 1/8/66

Date Serviced	Reason	Engineer	Work Done	Remarks
6/3/68	preventive	MOORE & TAYLOR	line level checked xmtr removed for service	-1 db line level at Pearsons
6/29/68	P	Moore	tune-up	driver & final tuned into scope
7/10/68	—	Sloan	installation & tune	good coverage - slight hum.

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: AM XMTR STEWART Serial No. 660801-4 Purchase Date: 1/8/68

Date Serviced	Reason	Engineer	Work Done	Remarks
6/13/68	PM	MOORE & TAYLOR	xmtr removed for service line level checked	+12 db line level at Stewart
6/29/68	"	Moore	tune-up	driver & final tuned into 'scope
9/9/68	—	Sanborn	installation + tune-up	well tuned but lousy coverage - will have to install more antenna loads.

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: AM XMTR STARR Serial No. 660801-7 Purchase Date: 1/8/66

Date Serviced	Reason	Engineer	Work Done	Remarks
6/3/68	PM	MOORE & TAYLOR	~~Mounts~~ removed for service line level checked	+7 db line level at Starr
6/29/68	P	Moore	tune-up	driver & final tuned into loads
9/9/68	—	Sheridan	installation + tune-up	good coverage

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: AM XMTR (CHATEAU) Serial No. 660801-9 Purchase Date: 1/8/66

Date Serviced	Reason	Engineer	Work Done	Remarks
~~5/28~~ 6/3/68	PREVENTIVE	MOORE & TAYLOR	trans. removed for service line level checked	-2 db line level at Chateau
6/29/68	P	Moore	tune-up	unit tuned into 'scope
9/9/68	—	Skarda	installation & tune-up	complete coverage.

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: AM XMTR HEPBURN Serial No. 660801-10 Purchase Date: 1/8/66

Date Serviced	Reason	Engineer	Work Done	Remarks
6/3/68	PREVENTIVE	MOORE & TAYLOR	xmtr removed for service line level checked	-15 db line level to Hepburn
6/28/68	P	Moore	attempt to tune	xmtr inoperative, unable to ascertain problem
7/20/68	P	Moore	unit tuned	driver & final tuned into scope
9/9/68	—	Sheridan	installed & tune-up	no coverage - needs lots of work

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: AM XMTR (GIFFORD) Serial No. 660801-11 Purchase Date: 1/8/66

Date Serviced	Reason	Engineer	Work Done	Remarks
6/3/68	preventive	Moore & Taylor	xmtr removed for service line level checked	-4 db level in line to Gifford NOTE: all readings of line level taken with 1000 Hz tone at 0 VU on control board and all previous AM transmitters removed
6/28/68	preventive	Moore	tune-up	driver & final tuned into isospe
7/8/68	—	Rhodes	installation + tune-up	works beautifully
10/6/68	preventive	Rhodes	tune-up.	attempting to get rid of hum. Tremp helped somewhat.

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: AM XMTR (~~SHARK~~) (PAINTER) Serial No. 60801-12 Purchase Date: 1/8/60

Date Serviced	Reason	Engineer	Work Done	Remarks
6/3/68	PREVENTIVE	MOORE & TAYLOR	xmtr removed for service line level checked	-4db line level to Painter
6/28/68	P	Moore	attempt to tune unit	fuse socket inoperative
~~7/10/68~~	~~P~~	~~Moore~~	~~unit tuned~~	~~power & final tuned into load~~
9/10/68	—	Brown	installation & tune-up	good coverage - 1st to 3rd flrs. interference - 4th flr.

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: AM XMTR FORREST Serial No. 6703-3 Purchase Date: 3/3/67

Date Serviced	Reason	Engineer	Work Done	Remarks
6/3/68	PM	MOORE & TAYLOR	xmtr removed for service line level checked	+5 db at Forrest
9/10/68	—	Shanahan	install a tube	lousy
11/1/68	—	Moore	install new if new type xmtr	no improvement, Forrest freq (550) necessitates modification of output circuit, ant. connections in Forrest need work maybe.

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: AM XMTR Serial No. 661120 Purchase Date: 2/11/66

BATTELL (new type)

Date Serviced	Reason	Engineer	Work Done	Remarks
6/3/68	preventive	MOORE & TAYLOR	Xmtr removed for service line level checked	+2 dB line level at Battell
10/6/68	repair	Sheahan	installed 220 mmf cap. across output.	cap. made possible to resonate output now getting approx. 2x old output.
10/6/68	install	Sheahan	installed & tuned	

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: TRANSMITTER Serial No. A830-1 Purchase Date: FEB. 1968

Date Serviced	Reason	Engineer	Work Done	Remarks

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: GATES STA-LEVEL Serial No. _____ Purchase Date: MARCH 1968

Date Serviced	Reason	Engineer	Work Done	Remarks

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: GATES ANTENNA Serial No. FM-11 Purchase Date: FEB. 1968

Date Serviced	Reason	Engineer	Work Done	Remarks

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: CONTROL BOARD Serial No. _____ Purchase Date: _____

Date Serviced	Reason	Engineer	Work Done	Remarks
Sept, 10, 1969	Worn Tubes	J. Taylor	Tubes Replaced	

ENGINEERING DEPT. MAINTENANCE RECORD

ORIGINAL ORDER

ORDER NO.

CONTRACT

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: PRODUCTION BOARD Serial No. _____ Purchase Date: FEB. 1968

Date Serviced	Reason	Engineer	Work Done	Remarks

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: BOGEN TURNTABLE Serial No. B 62 Purchase Date: _____

Date Serviced	Reason	Engineer	Work Done	Remarks

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: GATES TURNTABLE/ REK-O-KUT ARM & STYLUS Serial No. CB-500 Purchase Date: DEC. 1967

Date Serviced	Reason	Engineer	Work Done	Remarks

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: GATES TURNTABLE/ REK-O-KUT ARM & STYLUS Serial No. CB-500 Purchase Date: 1966

Date Serviced	Reason	Engineer	Work Done	Remarks

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: QRK TURNTABLE/ REK-O-KUT ARM & STYLUS Serial No. QRK-17/5 Purchase Date: 1965

Date Serviced	Reason	Engineer	Work Done	Remarks

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: AMPEX TAPE RECORDER Serial No. 601 Purchase Date:

Date Serviced	Reason	Engineer	Work Done	Remarks

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: ROBERTS TAPERECORDER Serial No. 192 HT Purchase Date: 1967 SEPT.

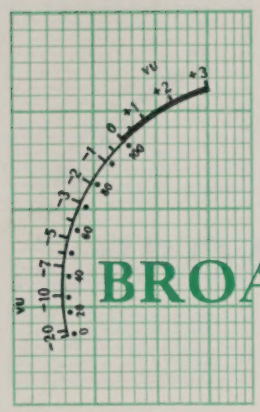
Date Serviced	Reason	Engineer	Work Done	Remarks

WRMC-FM ENGINEERING DEPT. MAINTENANCE RECORD

Equipment: VIKING TAPE-DECK & REC./PLAY ELECTRONICS Serial No. 230 Purchase Date: 1966

Date Serviced	Reason	Engineer	Work Done	Remarks

File



HUGH T. McKENNY

R.F.D. #1, MILTON, VERMONT • TELEPHONE 893 - 2278

BROADCAST ENGINEERING SERVICE

— CONTRACT —

I, Hugh T. McKenny, agree to perform the functions of First Class Engineer for Class D Frequency Modulation Station WRMC-FM. I certify that I hold an FCC First Class Radio Telephone License number P1-1-11607 with Ship RADAR Endorsement. The Expiration Date of this license is 2 February 1973. I shall be responsible for maintaining the transmitting equipment of WRMC-FM in such a way as to fulfill the requirements of FCC Rules 73.565c3 and 73.565e which apply to WRMC-FM This shall include not less than one service call in each three month period of broadcast within my term, and performance of all routine maintenance on transmitting equipment, with all parts to be supplied by WRMC-FM. In addition I shall be available to assist in the maintenance of the student maintained studio equipment connected with WRMC-FM. Any Major Repairs shall be performed by agreements outside of this contract. I shall fulfill the above terms for the period of 1 October 1971 to 30 September 1972 for the fee of $250.00. I understand that this fee will be paid to me in four $62.50 payments due on 31 December 1971, 31 March 1972, 30 June 1972, and 30 September 1972.

Hugh T. McKenny

Hugh T. McKenny, P1-1-11607
1 October 1971

Peggy Robinson

WRMC President
Middlebury College
Middlebury
Vermont

Keith W. Tall, Jr.

Student Activities Coordinator
Middlebury College
Middlebury
Vermont

HUGH T. McKENNY

R.F.D. #1, MILTON, VERMONT • TELEPHONE 893-2328

BROADCAST ENGINEERING SERVICE

CONTRACT

I, Hugh T. McKenny, agree to perform the duties of First Class Engineer for Class D Frequency Modulation Station WBMC-FM.

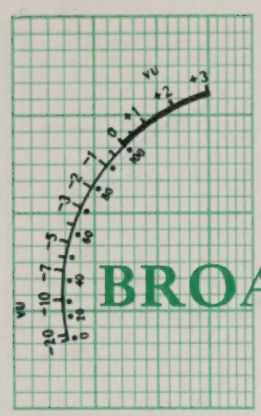
I certify that I hold an FCC First Class Radio Telephone License number PI-I-11607 with Data Broadcast Endorsement. The duplicate of this license is 2 February 1972. I shall be responsible for maintaining the transmitting equipment of WBMC-FM in such a way as to fulfill the requirements of FCC Rules 73.1560 and 73.1575 which apply to WBMC-FM. This shall include not less than one service call in each three month period of broadcast within my area, and performance of all routine maintenance on transmitting equipment, with all parts to be supplied by WBMC-FM. In addition I shall be available to assist in the maintenance of the studio monitored audio equipment connected with WBMC-FM. Any major repairs shall be performed by agreements outside of this contract.

I shall fulfill the above terms for the period of 1 October 1971 to 30 September 1972 for the fee of $250.00. I understand that this fee will be paid to me in four $62.50 payments due on 31 December 1971, 31 March 1972, 30 June 1972, and 30 September 1972.

Hugh T. McKenny, PI-I-11607
1 October 1971

Duane Pendleton
Middlebury College
Middlebury
Vermont

Student Activities Coordinator
Middlebury College
Middlebury
Vermont



HUGH T. McKENNY

R.F.D. #1, MILTON, VERMONT • TELEPHONE 893 - 2278

BROADCAST ENGINEERING SERVICE

------- C O N T R A C T -------

I, Hugh T. McKenny, agree to perform the functions of First Class Engineer for Class D Frequency Modulation Station WRMC-FM. I certify that I hold an FCC First Class Radio Telephone License with Ship RADAR Endorsement. I shall be responsible for maintaining the transmitting equipment of WRMC-FM in such a way as to fulfill the requirements of FCC Rules 73.565c3 and 73.565e which apply to WRMC-FM this shall include not less than one service call in each three month period of broadcast within my term, and performance of all routine maintenance on transmitting equipment, with all parts to be supplied by WRMC-FM. In addition I shall be available to assist in the maintenance of the student maintained studio equipment connected with WRMC-FM. Any major repairs shall be performed by agreements outside of this contract. I shall fulfill the above terms for the period of 1 October 1972 to 30 September 1973 for the fee of $250.00 payable at the start of the contract period.

Hugh T. McKenny

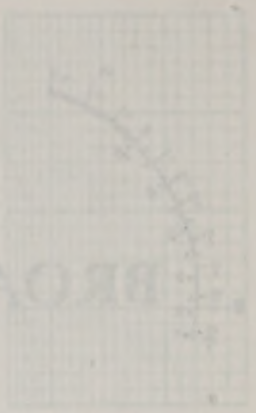
Hugh T. McKenny P1-1-11607
1 October 1972

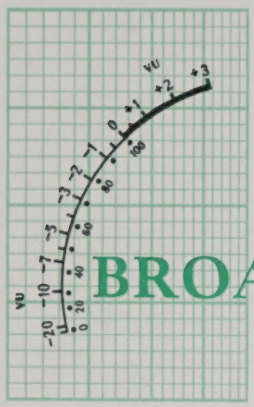
Christopher Graff

WRMC-FM President
Middlebury College
Middlebury, Vermont

R W Tall

Student Activities Coordinator
Middlebury College
Middlebury, Vermont





HUGH T. McKENNY

R.F.D. #1, MILTON, VERMONT • TELEPHONE 893 - 2278

BROADCAST ENGINEERING SERVICE

- - - - - C O N T R A C T - - - - -

I, Hugh T. McKenny, agree to perform the functions of First Class Engineer for Class-D Frequency Modulation Station WRMC-FM. I certify that I hold an FCC First Class Radio Telephone License with Ship RADAR Endorsement (P1-1-15905). I shall be responsible for maintaining the transmitting equipment of WRMC-FM in such a way as to fulfill the requirements of FCC Rules 73.565c3 and 73.565e which apply to WRMC-FM this shall include not less than one service call in each three month period of broadcast within my term, and performance of all routine maintenance on transmitting equipment, with all parts to be supplied by WRMC-FM. In addition I shall be available to assist in the maintenance of student maintained studio equipment connected with WRMC-FM. Any major repairs shall be performed by agreements outside of this contract. I shall fulfill the above terms for the period of 1 October 1976 to 30 September 1977 for the Fee of $300.00 payable at the start of the contract period.

Hugh T. McKenny

Hugh T. McKenny P1-1-15905
1 October 1976

Jonathan D. Hart

WRMC-FM President
Middlebury College
Middlebury, Vermont

Jacqueline Fleckenstein

Student Activities Coordinator
Middlebury College
Middlebury, Vermont

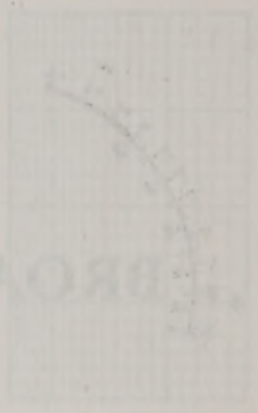


EXHIBIT E
ENGINEERING STATEMENT
IN SUPPORT OF AN APPLICATION BY
MIDDLEBURY COLLEGE
PRESIDENT AND FELLOWS
FOR A CONSTRUCTION PERMIT
FOR INCREASED FACILITIES
WRMC-FM 100 W -37 FT. CH. 219 91.7 MHz
MIDDLEBURY, VERMONT

LOHNES AND CULVER
CONSULTING RADIO ENGINEERS

WASHINGTON, D.C. 20005

EXHIBIT E
ENGINEERING STATEMENT
IN SUPPORT OF AN APPLICATION BY
MIDDLEBURY COLLEGE
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Lohnes and Culver

Washington, D. C.

April, 1979

ENGINEERING STATEMENT
IN SUPPORT OF AN APPLICATION BY
MIDDLEBURY COLLEGE
PRESIDENT AND FELLOWS
FOR A CONSTRUCTION PERMIT
FOR INCREASED FACILITIES
WRMC-FM 100 W -37 FT. CH. 219 91.7 MHz
MIDDLEBURY, VERMONT

INTRODUCTION

Middlebury College President and Fellows, licensee of educational FM broadcast station WRMC-FM, which operates on Channel 219, 91.7 MHz, at Middlebury, Vermont, is filing an application for a construction permit to change transmitter and antenna system with a resultant change in effective radiated power.

This engineering statement, together with Section V-B of FCC Form 340 to which it is attached as Exhibit E, supplies complete engineering and technical data in support of the Middlebury College application for construction permit. All calculations, graphs, contours and other technical data contained in or attached to this statement have been determined in accordance with the existing Rules of the Federal Communications Commission unless specifically stated otherwise herein.

PROPOSED FACILITIES

The application proposes an operation for WRMC-FM at the present transmitter site with an increased effective radiated power of 100 W at an antenna height of 37 feet below average terrain within 2 to 10 miles of the proposed transmitter site.

ALLOCATION STUDY

As shown in the allocation study attached to this exhibit as Figure 1,

the closest co-channel or side channel stations or allocations to the WRMC-FM transmitter site are the operations of WGDR, Ch. 216, Plainfield, Vermont; WIUV, Ch. 217, Castleton, Vermont and WMIF, Ch. 218, Stowe, Vermont, which are three, two and one channels removed, respectively, from the WRMC-FM operation. All three stations are presently low power Class D operations located from approximately 28 to 41 miles distant and with the separations as shown, there is no possibility of interference. The closest higher power station or allocation is the Canadian, Channel 220, Class C1 allocation at Saint Jean, Quebec, approximately 89 miles away. No interference is predicted to occur with any operation on this or any other channel, as shown on the allocation study of Figure 1.

TRANSMITTER, STUDIO AND REMOTE CONTROL LOCATIONS

The transmitter site proposed for the WRMC-FM operation is the same as the present site at the Gifford Hall building on Hepburn Drive on the Middlebury College campus, as shown on the location map attached to this exhibit as Figure 2. There will be no change in the studio and remote control location for the WRMC-FM operation from that presently employed at Redfield Proctor Hall.

PROPOSED ANTENNA SYSTEM

The new antenna system for the proposed operation of WRMC-FM will consist of a one-bay circularly polarized Phelps Dodge CP-1000-1 antenna. This antenna will be side mounted on the short supporting pole, which is supported inside the existing wooden structure on the top of Gifford Hall at Middlebury College, as shown on the antenna sketch attached to this exhibit as Figure 3. The geographic

coordinates and ground elevation above mean sea level of the antenna location are also shown on that figure.

The center of the radiating portion of the WRMC-FM one-bay antenna will be supported 74 feet above ground level or 534 feet above mean sea level with the resultant height below average terrain of 37 feet. The over-all height of the WRMC-FM antenna structure without obstruction lighting will remain unchanged at 90 feet above ground level or 550 feet above mean sea level. No obstruction lighting is required.

TRANSMITTER AND RADIATED POWER

The transmitter to be used for the proposed WRMC-FM operation will have a maximum output power rating of 300 watts. Power will be fed from the transmitter to the antenna by means of a 50-foot length of coaxial transmission line having an outside diameter of 7/8 inches and a rated efficiency of 95% at 91.7 MHz. The transmitter will be operated at reduced power of 240 watts so that after taking into account the power loss in the transmission line and the power gain of the antenna system, the effective radiated power will be 100 watts.

ELEVATION AND CONTOUR DATA

Elevation data was determined along eight evenly spaced radials extending out from the WRMC-FM transmitter site from detailed topographic maps, similar to those attached to this exhibit as Figure 4, which are published by the United States Geological Survey. The elevation data has been plotted and is shown on the profile graphs attached to this exhibit as Figure 5. The average elevation of the

terrain within 2 to 10 miles of the WRMC-FM transmitter location is tabulated on Figure 6 and was obtained from the graphs of Figure 5. The contour data of Figure 6 was determined in accordance with the normal prediction methods of the Commission and the 70 dbu and 60 dbu contours have been plotted on the map attached to this exhibit as Figure 7.

ENVIRONMENTAL IMPACT

The new WRMC-FM antenna will replace the existing antenna, which is mounted inside an existing cupola atop the Gifford Hall building and will result in no change in exterior dimensions or over-all height. For this reason it is believed that the proposed WRMC-FM antenna will not create any adverse environmental impact.

AERONAUTICAL CONSIDERATIONS

Since there will be no changes made in the external appearance or over-all height of the antenna supporting structure, it is felt that no new hazard to air navigation will be created.

For this reason FAA Form 7460-1 and FCC Form 340, Section V-G are not being filed.

Respectfully submitted,

LOHNES AND CULVER

By Robert D Culver
Robert D. Culver
Registered Professional Engineer
District of Columbia, Reg. No. P. E. 7411

April, 1979

District of Columbia)
) ss:
City of Washington)

ROBERT D. CULVER, after being duly sworn, on oath deposes and says that he is a radio engineer, a partner in the firm of Lohnes and Culver, Washington, D. C.;

That he is a graduate of the University of Maryland, School of Engineering, holding the degree of Bachelor of Science in Electrical Engineering award by that Institution in 1971, that he is a Registered Professional Engineer, No. PE-7411-Elec., in the District of Columbia;

That he has been engaged since 1966 in the practice of radio engineering with the firm of Lohnes and Culver, has made numerous field intensity measurements and proof of performance tests on AM, FM and TV broadcast stations, has participated in the design and adjustment of directional antenna systems, has carried out allocation studies involving the AM, FM and TV spectrum, and has submitted engineering reports and statements to the Federal Communications Commission on previous occasions;

That the measurements, calculations and exhibits contained in the attached engineering report and/or statement, or attached thereto, were made by him personally or under his personal supervision and direction, he has personally examined and verified same;

That all of the facts and data included in or attached to the foregoing engineering report and/or statement are true and correct of deponent's personal knowledge unless otherwise stated therein, and any statements shown as being made on information and belief are believed by deponent to be true and correct as therein appearing.

Robert D Culver
Robert D. Culver
Registered Professional Engineer
District of Columbia, No. PE-7411-Elec.

Sworn to and subscribed before me, this the 25th day of April,
A. D., 1979.

Notary Public

My Commission expires April 14, 1983

FIGURE 1
ALLOCATION STUDY
WRMC-FM 100 W -37 FT. CH. 219 91.7 MHz
MIDDLEBURY COLLEGE PRESIDENT AND FELLOWS
MIDDLEBURY, VERMONT

	CHANNEL	CLASS	STATION	LOCATION	SEPARATION (Miles)
-3	216	D	WGDR	Plainfield, Vt.	41.3
-3	216	A	WJJW	North Adams, Mass.	91.12
-2	217	D	WIUV	Castleton, Vt.	27.73
-2	217	C1	Allocation	Montreal, Que.	104.80
-1	218	D	WMTF	Stowe, Vt.	39.92
-1	218	B	WRPI	Troy, N. Y.	95.08
0	219	D	WWLR	Lyndonville, Vt.	67.68
0	219	B	WHUS	Storrs, Conn.	158.63
+1	220	D	WGFR	Glens Falls, N. Y.	51.49
+1	220	C1	Allocation	St. Jean, Que.	89.15
+2	221	A	WSLE	Peterborough, N. H.	102.9
+3	222	B	WFLY	Troy, N. Y.	103.32
+53	272	A	Allocation	Randolph, Vt.	26.24
+54	273	B	Allocation	Rome, N. Y.	130.25

Prepared by

Lohnes and Culver — Washington, D. C.

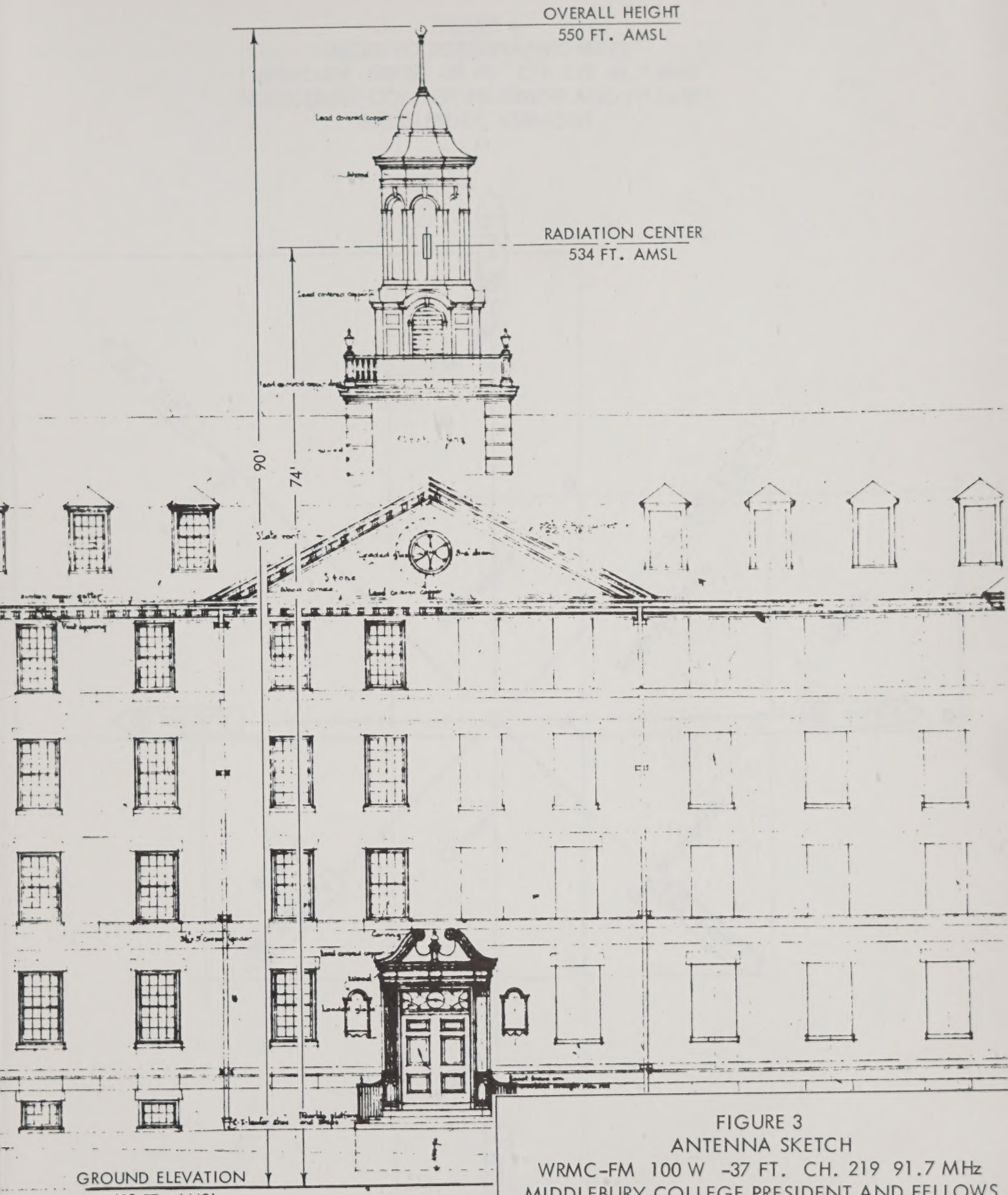
April, 1979

FIGURE 2
LOCATION MAP
WRMC-FM 100 W -37 FT. CH. 219 91.7 MHz
MIDDLEBURY COLLEGE PRESIDENT AND FELLOWS
MIDDLEBURY, VERMONT

Prepared by

Lohnes and Culver Washington, D. C.

April, 1979

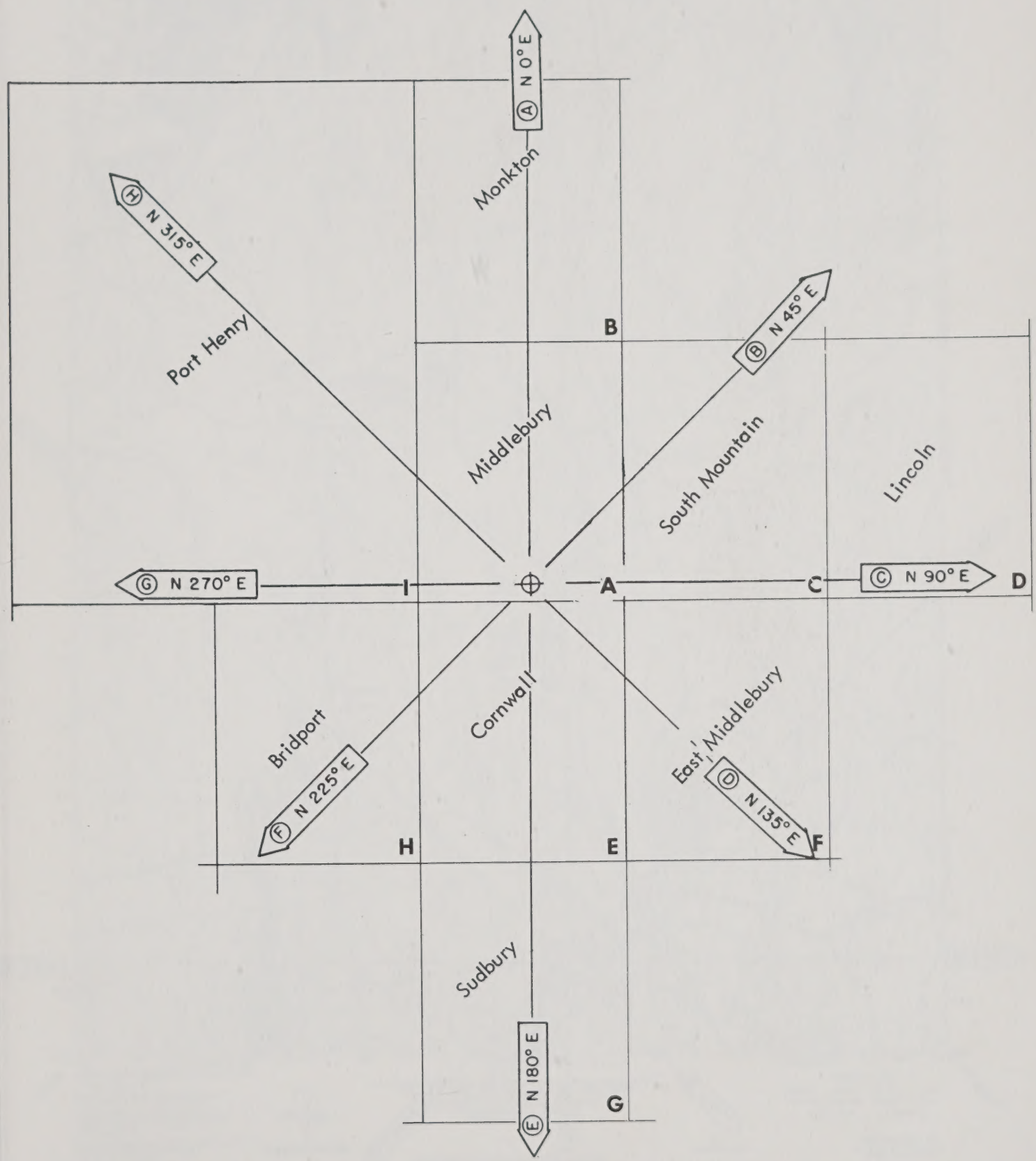


NORTH LATITUDE: 44° 00' 35"
WEST LONGITUDE: 73° 10' 45"

FIGURE 3
ANTENNA SKETCH
WRMC-FM 100 W -37 FT. CH. 219 91.7 MHz
MIDDLEBURY COLLEGE PRESIDENT AND FELLOWS
MIDDLEBURY, VERMONT

Prepared by
Lohnes and Culver Washington, D. C.
April, 1979

FIGURE 4
INDEX TO TOPOGRAPHIC MAPS
WRMC-FM 100 W -37 FT. CH. 219 91.7 MHz
MIDDLEBURY COLLEGE PRESIDENT AND FELLOWS
MIDDLEBURY, VERMONT



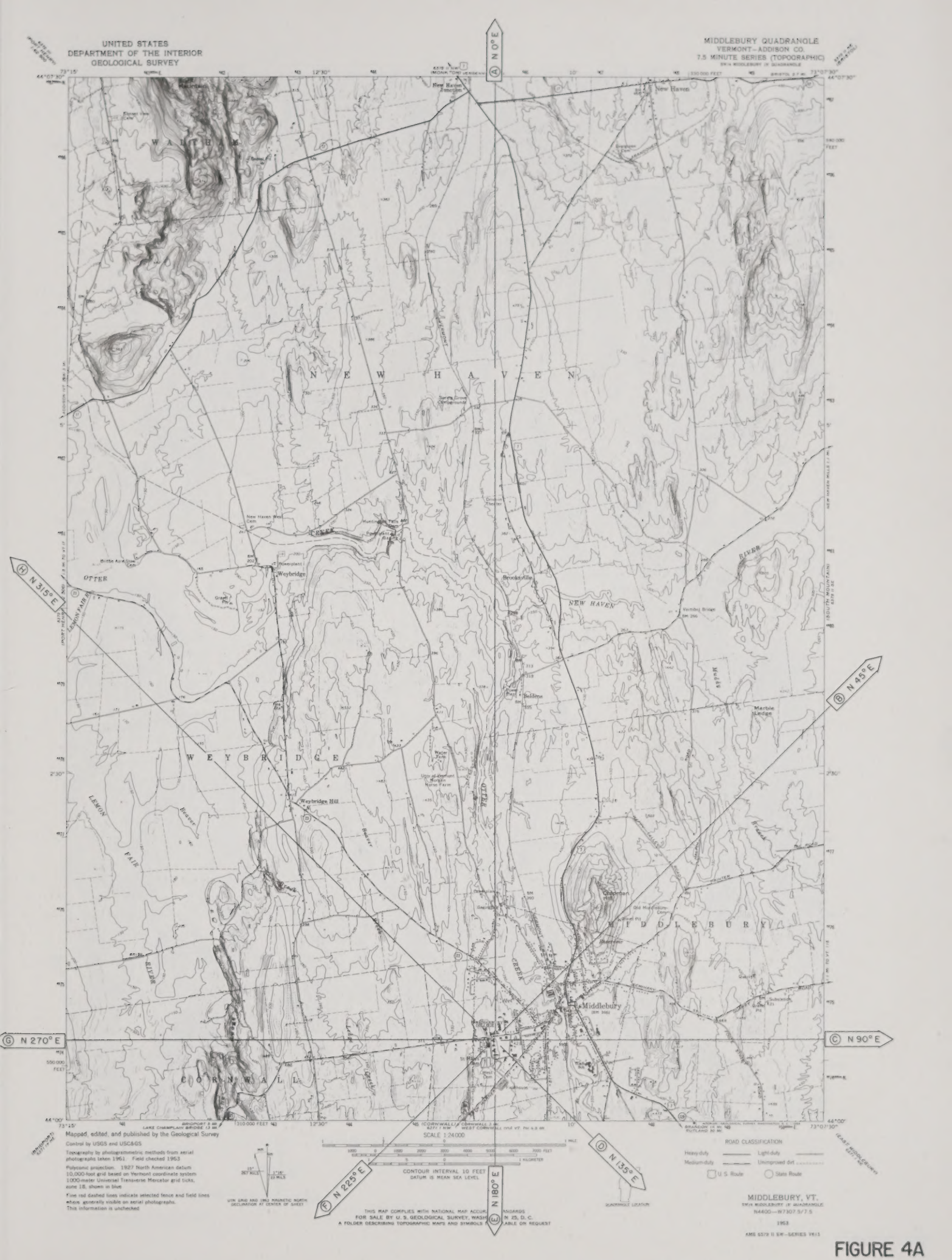

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
MIDDLEBURY QUADRANGLE
VERMONT—ADDISON CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
A N 0° E
B N 45° E
C N 90° E
D N 135° E
E N 180° E
F N 225° E
G N 270° E
H N 315° E
WALTHAM
NEW HAVEN
WEYBRIDGE
CORNWALL
MIDDLEBURY
New Haven
Weybridge
Brooksville
Middlebury
Weybridge Hill
Chipman Hill
Marble Ledge
OTTER CREEK
LEMON FAIR
NEW HAVEN RIVER
Mapped, edited, and published by the Geological Survey
SCALE 1:24 000
CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL
ROAD CLASSIFICATION
MIDDLEBURY, VT.
1953

FIGURE 4A

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
MONKTON QUADRANGLE
VERMONT-ADDISON CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
FERRISBURG
MONKTON
WALTHAM
NEW HAVEN
Vergennes
Cedar Swamp
Little Otter Creek
Mapped, edited, and published by the Geological Survey
Control by USGS and USC&GS
Topography by photogrammetric methods from aerial photographs taken 1961. Field checked 1963
Polyconic projection. 1927 North American datum
10,000-foot grid based on Vermont coordinate system
1000-meter Universal Transverse Mercator grid ticks, zone 18, shown in blue
Fine red dashed lines indicate selected fence and field lines where generally visible on aerial photographs.
This information is unchecked
SCALE 1:24 000
CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL
UTM GRID AND 1972 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST
ROAD CLASSIFICATION
Heavy-duty
Light-duty
Medium-duty
Unimproved dirt
U. S. Route
State Route
MONKTON, VT.
N4407.5—W7307.5/7.5
1963
AMS 6372 II NW—SERIES V815

FIGURE 4B

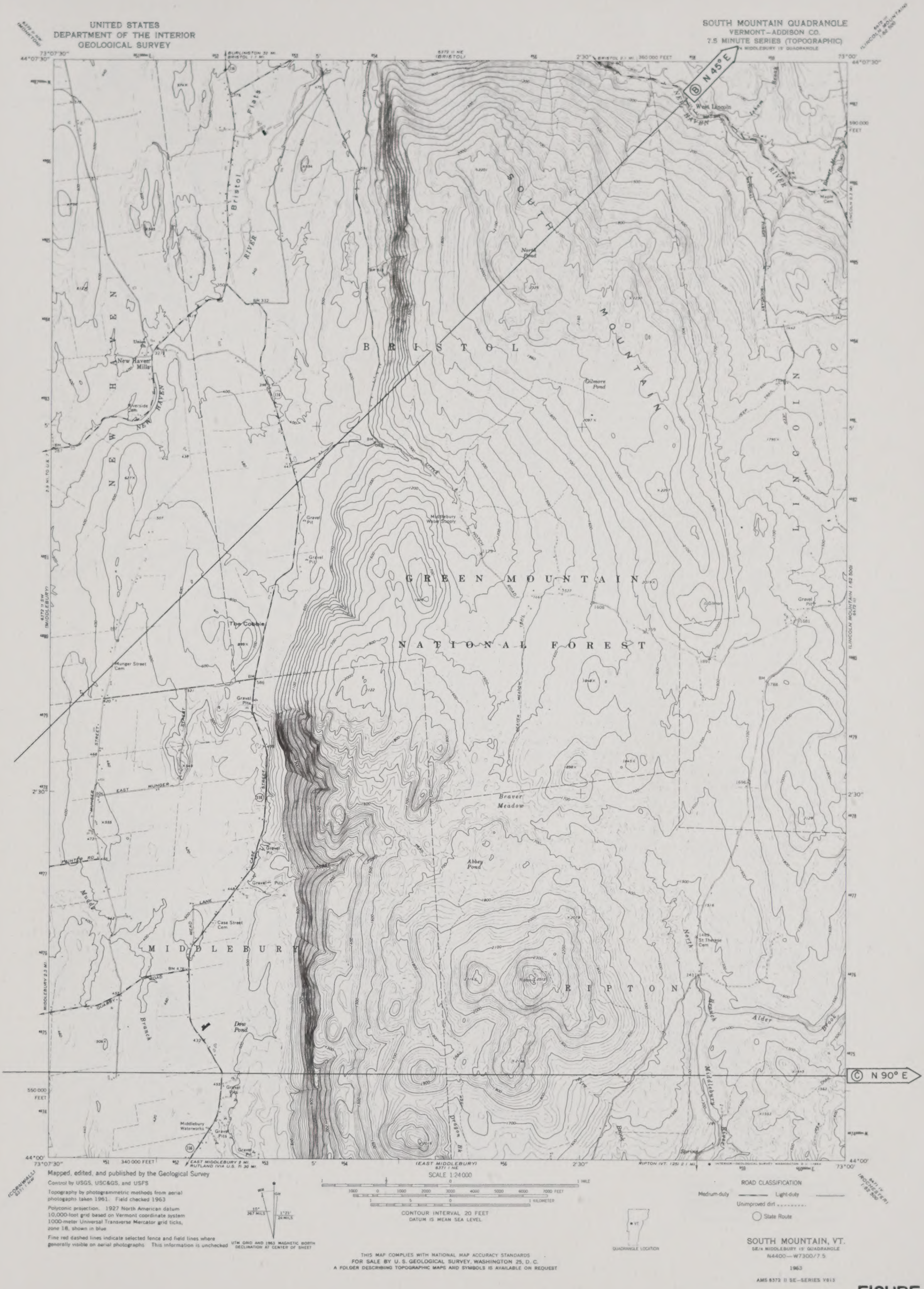

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
SOUTH MOUNTAIN QUADRANGLE
VERMONT–ADDISON CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
SE/4 MIDDLEBURY 15' QUADRANGLE
73°07'30"
44°07'30"
BURLINGTON 32 MI.
BRISTOL 1.1 MI.
BRISTOL 2.1 MI.
360 000 FEET
73°00'
590 000 FEET
B N 45° E
C N 90° E
West Lincoln
NEW HAVEN RIVER
Bristol Flats
Bristol
RIVER
BM 332
NEW HAVEN
New Haven Mills
Riverside Cem
BRISTOL
SOUTH MOUNTAIN
North Pond
Gilmore Pond
LINCOLN
Maple Cem
Middlebury Water Supply
Gravel Pit
GREEN MOUNTAIN
NATIONAL FOREST
The Cobble
Munger Street Cem
MUNGER STREET
EAST MUNGER
PAINTER RD
Beaver Meadow
Abbey Pond
Case Street Cem
LANE
MIDDLEBURY
RIPTON
Ripton
St Therese Cem
North Branch
Alder Brook
Middlebury River
Dow Pond
Branch
QUARRY ROAD
Middlebury Waterworks
Gravel Pits
Spring
2'30"
5'
550 000 FEET
340 000 FEET
44°00'
73°07'30"
EAST MIDDLEBURY 2 MI.
RUTLAND (VIA U.S. 7) 30 MI.
(EAST MIDDLEBURY)
RIPTON (VT. 125) 2.1 MI.
Mapped, edited, and published by the Geological Survey
Control by USGS, USC&GS, and USFS
Topography by photogrammetric methods from aerial photographs taken 1961. Field checked 1963
Polyconic projection. 1927 North American datum
10,000-foot grid based on Vermont coordinate system
1000-meter Universal Transverse Mercator grid ticks, zone 18, shown in blue
Fine red dashed lines indicate selected fence and field lines where generally visible on aerial photographs. This information is unchecked
UTM GRID AND 1963 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
SCALE 1:24 000
CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, WASHINGTON 25, D. C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST
QUADRANGLE LOCATION
ROAD CLASSIFICATION
Medium-duty
Light-duty
Unimproved dirt
State Route
SOUTH MOUNTAIN, VT.
SE/4 MIDDLEBURY 15' QUADRANGLE
N4400—W7300/7.5
1963
AMS 6372 II SE—SERIES V813

FIGURE 4C

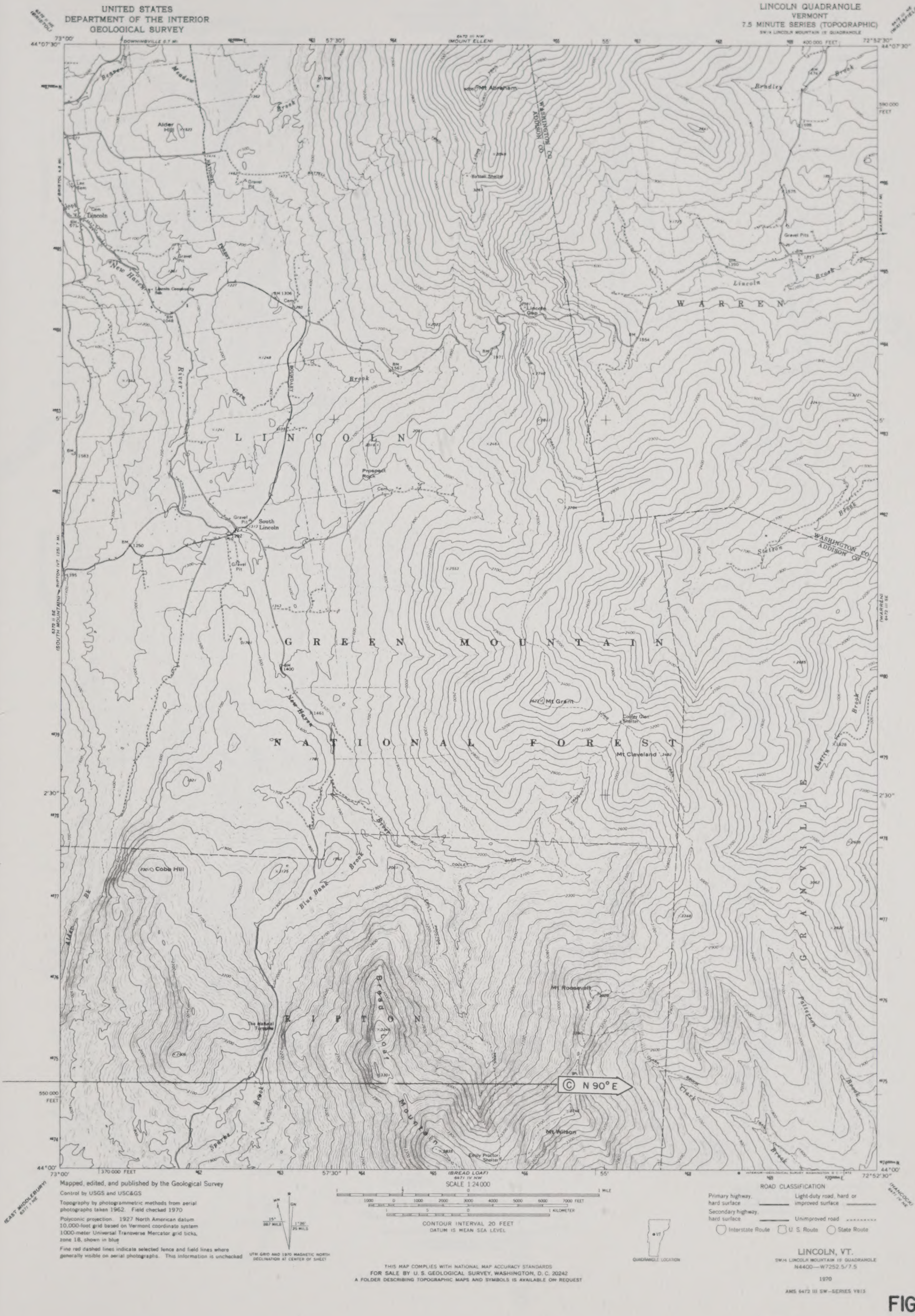

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
LINCOLN QUADRANGLE
VERMONT
7.5 MINUTE SERIES (TOPOGRAPHIC)
(MOUNT ELLEN)
Beaver
Meadow
Brook
Alder Hill
Mt Abraham
Battell Shelter
WASHINGTON CO
ADDISON CO
Bradley
Brook
Lincoln
New Haven
Lincoln Gap
Lincoln Brook
W A R R E N
River
Cota
L I N C O L N
Prospect Rock
South Lincoln
Gravel Pit
Gravel Pits
G R E E N M O U N T A I N
N A T I O N A L F O R E S T
Mt Grant
Cooley Glen Shelter
Mt Cleveland
Stetson
Brook
Austin
Brook
G R A N V I L L E
Cobb Hill
Blue Bank
Brook
Alder
Bk
R I P T O N
Bread Loaf
Mountain
Mt Roosevelt
Mt Wilson
Emily Proctor Shelter
The Natural Turnpike
Sparks
Brook
Patterson
Clark
Brook
© N 90° E
(BREAD LOAF)
SCALE 1:24000
Mapped, edited, and published by the Geological Survey
Control by USGS and USC&GS
Topography by photogrammetric methods from aerial photographs taken 1962. Field checked 1970
Polyconic projection. 1927 North American datum
10,000-foot grid based on Vermont coordinate system
1000-meter Universal Transverse Mercator grid ticks, zone 18, shown in blue
Fine red dashed lines indicate selected fence and field lines where generally visible on aerial photographs. This information is unchecked
UTM GRID AND 1970 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST
QUADRANGLE LOCATION
ROAD CLASSIFICATION
Primary highway, hard surface
Light-duty road, hard or improved surface
Secondary highway, hard surface
Unimproved road
Interstate Route
U. S. Route
State Route
LINCOLN, VT.
N4400—W7252.5/7.5
1970

FIGURE 4D

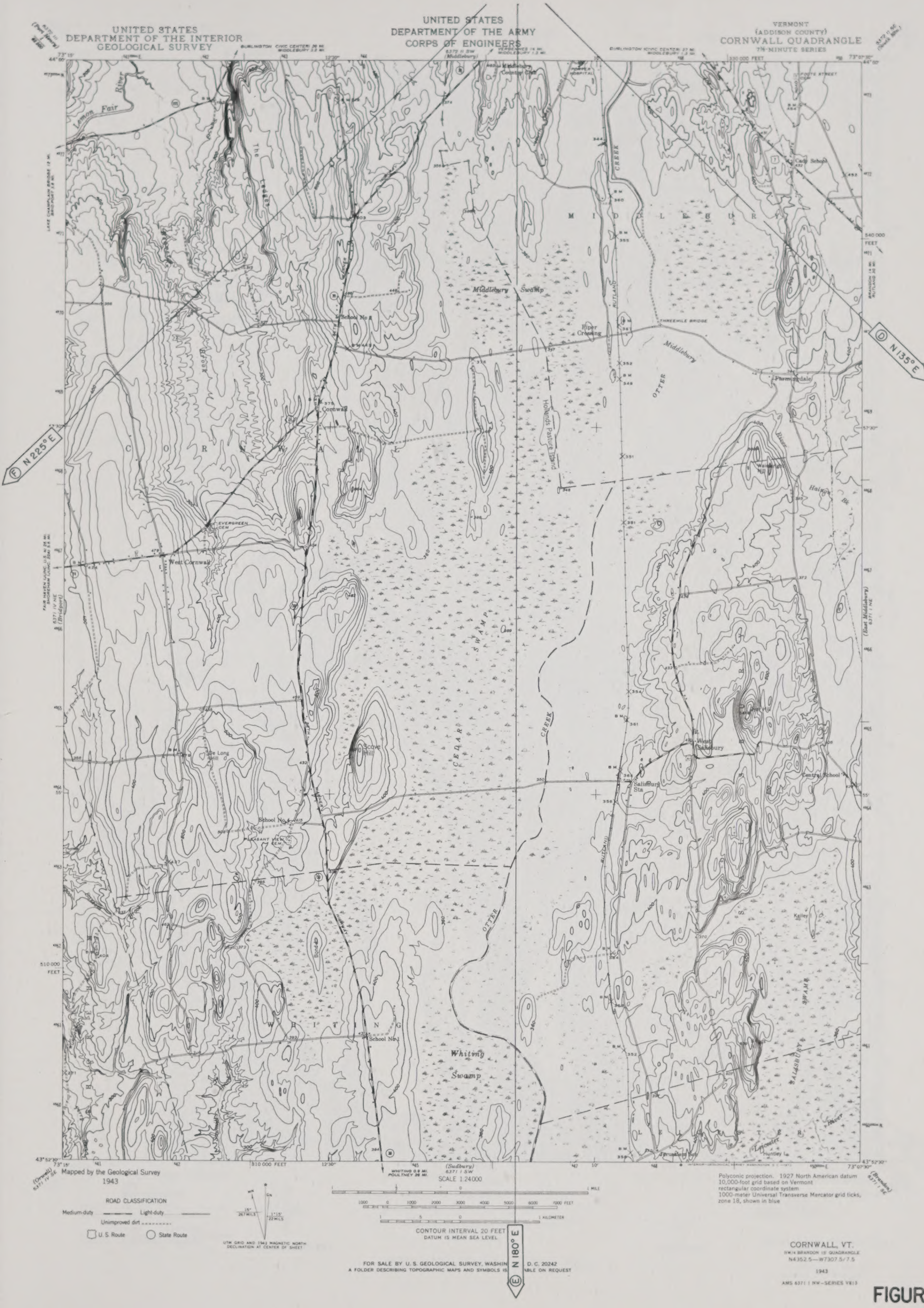

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
UNITED STATES
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
VERMONT
(ADDISON COUNTY)
CORNWALL QUADRANGLE
7½-MINUTE SERIES
N 225°E
N 135°E
N 180°E
Lemon Fair River
The Ledges
Middlebury Swamp
Piper Crossing
THREEMILE BRIDGE
Middlebury
OTTER CREEK
RUTLAND
Cady School
Farmingdale
Hollands Pasture Island
School No 8
Cornwall
C O R N W A L L
M I D D L E B U R Y
EVERGREEN CEM
West Cornwall
Wainwright Hill
Halnon Bk
CEDAR SWAMP
Scove Hill
De Long Hill
School No 4
PLEASANT VIEW CEM
West Salisbury
Salisbury Sta
Central School
Bond
W H I T I N G
School No 1
Whiting Swamp
SALISBURY SWAMP
Kelley
Jerusalem Sch
Leicester River
Huntley
Mapped by the Geological Survey
1943
ROAD CLASSIFICATION
Medium-duty
Light-duty
Unimproved dirt
U.S. Route
State Route
UTM GRID AND 1943 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
SCALE 1:24000
CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL
FOR SALE BY U.S. GEOLOGICAL SURVEY, WASHINGTON, D.C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST
Polyconic projection. 1927 North American datum
10,000-foot grid based on Vermont
rectangular coordinate system
1000-meter Universal Transverse Mercator grid ticks,
zone 18, shown in blue
CORNWALL, VT.
NW/4 BRANDON 15' QUADRANGLE
N4352.5—W7307.5/7.5
1943
AMS 6371 I NW—SERIES V813

FIGURE 4E

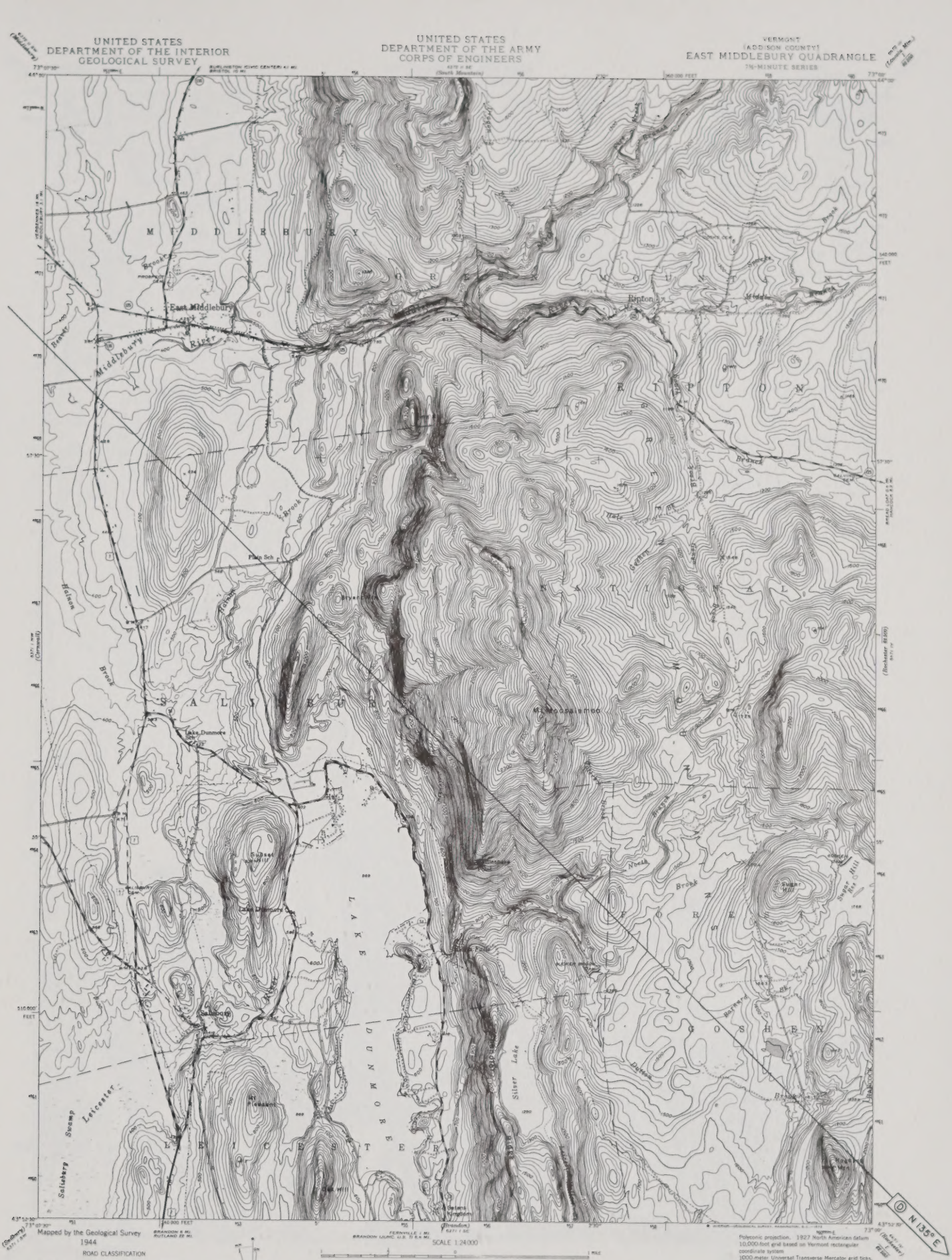

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
UNITED STATES
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
VERMONT
(ADDISON COUNTY)
EAST MIDDLEBURY QUADRANGLE
7½-MINUTE SERIES
MIDDLEBURY
EAST MIDDLEBURY
RIPTON
SALISBURY
LEICESTER
GOSHEN
Middlebury River
Lake Dunmore
Silver Lake
Mt. Moosalamoo
Salisbury Swamp
Leicester Swamp
Mapped by the Geological Survey
1944
ROAD CLASSIFICATION
Heavy-duty
Light-duty
Medium-duty
Unimproved dirt
U.S. Route
State Route
Revisions shown in purple compiled from aerial photographs taken 1972. This information not field checked
UTM GRID AND 1972 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
SCALE 1:24000
CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL
Polyconic projection. 1927 North American datum
10,000-foot grid based on Vermont rectangular coordinate system
1000-meter Universal Transverse Mercator grid ticks, zone 18, shown in blue
Location of Forest boundary furnished by U.S. Forest Service
FOR SALE BY U.S. GEOLOGICAL SURVEY, WASHINGTON, D.C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST
QUADRANGLE LOCATION
EAST MIDDLEBURY, VT.
N4352.5—W7300/7.5
1944
PHOTOREVISED 1972
AMS 6371 I NE—SERIES V813
N 135° E

FIGURE 4F

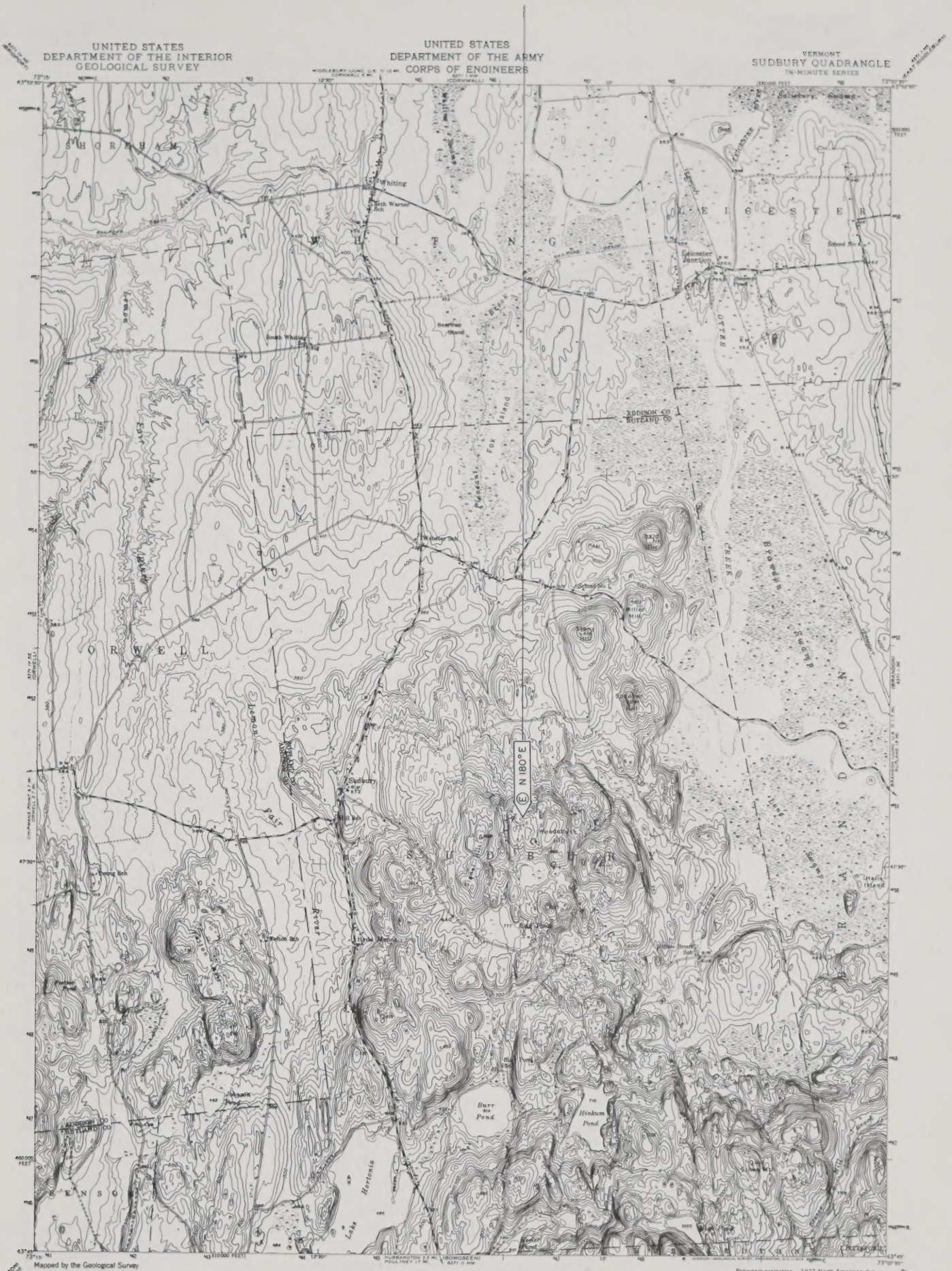

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
UNITED STATES
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
VERMONT
SUDBURY QUADRANGLE
7½-MINUTE SERIES
SHOREHAM
WHITING
LEICESTER
ORWELL
SUDBURY
BRANDON
BENSON
Whiting
Leicester Junction
Sudbury
Hill Sch
Webster Sch
Beartrap Island
Fox Island
Lemon Fair River
Burr Pond
Hinkum Pond
Lake Hortonia
ADDISON CO
RUTLAND CO
N 180°E
Mapped by the Geological Survey
1946
ROAD CLASSIFICATION
Medium-duty
Light-duty
Unimproved dirt
State Route
Revisions shown in purple compiled from aerial photographs taken 1972. This information not field checked
UTM GRID AND 1972 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
SCALE 1:24000
CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST
QUADRANGLE LOCATION
Polyconic projection. 1927 North American datum
10,000-foot grid based on Vermont rectangular coordinate system
1000-meter Universal Transverse Mercator grid ticks, zone 18, shown in blue
SUDBURY, VT.
N 4345—W 7307.5/7.5
1946
PHOTOREVISED 1972
AMS 6371 I SW—SERIES V815

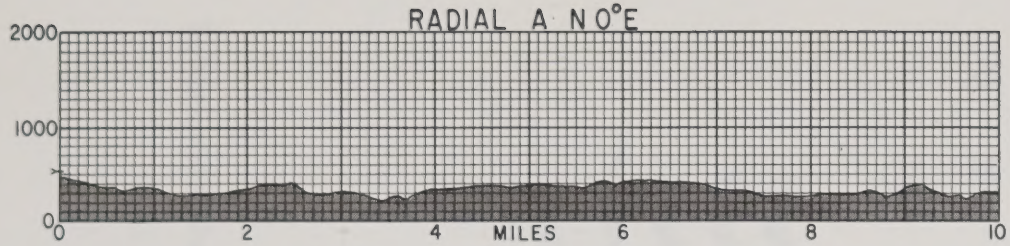
FIGURE 4G

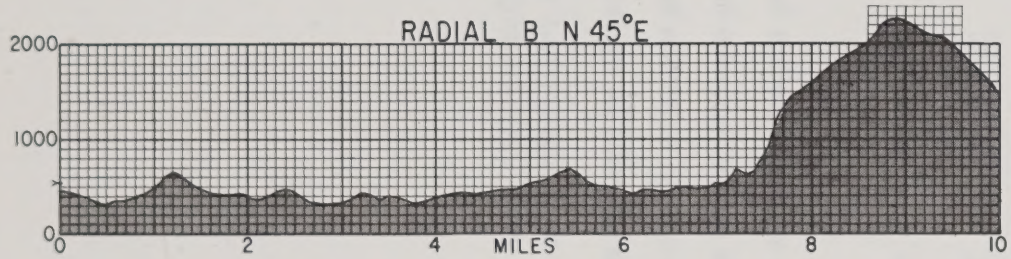
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
BRIDPORT QUADRANGLE
VERMONT-ADDISON CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
NE/4 TICONDEROGA 15' QUADRANGLE
73°22'30"
44°00'
20'
17'30"
73°15'
57'30"
55'
43°52'30"
540 000 FEET
510 000 FEET
1270 000 FEET
300 000 FEET
Bridport
B R I D P O R T
S H O R E H A M
C O R N W A L L
Dead Creek
West Branch
East Branch
Fair River
Lemon Fair
Bascom
Perry
Cedar Swamp
Hamilton Hill
All Saints Chapel
Cream Hill
Shoreham
St Genevieve Ch
Village Cem
Lakeview Cem
St Genevieve Cem
Sisson Hill
The Pinnacle
School No 6
LAKE CHAMPLAIN
N 225° E
LARRABEES PT. FERRY 2.5 MI.
LARRABEES PT. FERRY 3.1 MI.
(ORWELL) 6371 IV SE
ORWELL 5.3 MI. BENSON 12 MI.
RICHVILLE 0.4 MI.
WHITING 2.9 MI.
(TICONDEROGA) 6371 IV SW
(SUDBURY) 6371 I SW
(CORNWALL) 6371 I NW
Mapped, edited, and published by the Geological Survey
Control by USGS and USC&GS
Culture and drainage in part compiled from aerial photographs taken 1942
Topography by plane-table methods 1949
Hydrography in Lake Champlain by U. S. Lake Survey 1947
Polyconic projection. 1927 North American datum
10,000-foot grid based on Vermont coordinate system
1000-meter Universal Transverse Mercator grid ticks, zone 18, shown in blue
Revisions shown in purple compiled from aerial photographs taken 1972. This information not field checked
Purple tint indicates extension of urban areas
UTM GRID AND 1972 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
SCALE 1:24000
1 MILE
7000 FEET
1 KILOMETER
CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL
DEPTH CURVES IN FEET-DATUM IS MEAN LOW LAKE LEVEL 92.5 FEET
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST
QUADRANGLE LOCATION
ROAD CLASSIFICATION
HARD-SURFACE ALL WEATHER ROADS
DRY WEATHER ROADS
Heavy-duty
Improved dirt
Medium-duty
Unimproved dirt
Loose-surface, graded, or narrow hard-surface
U. S. Route
State Route
BRIDPORT, VT.
NE/4 TICONDEROGA 15' QUADRANGLE
N4352.5—W7315/7.5
1949
PHOTOREVISED 1972
AMS 6371 IV NE—SERIES V813

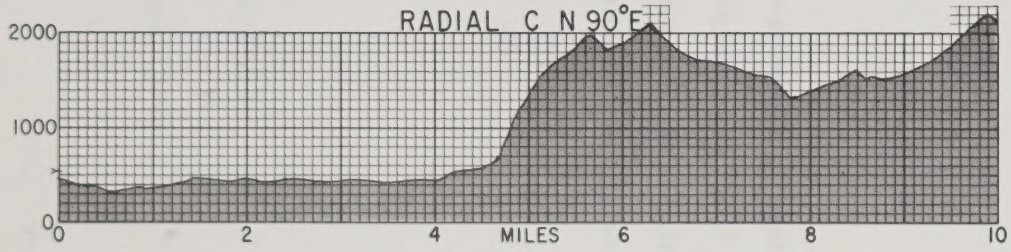
FIGURE 4H

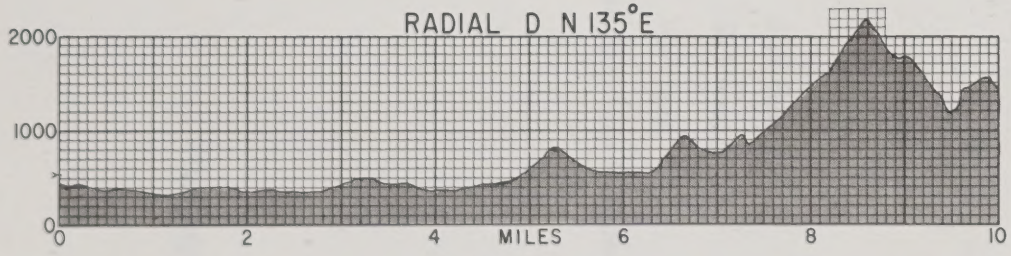
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
UNITED STATES
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
NEW YORK-VERMONT
PORT HENRY QUADRANGLE
15-MINUTE SERIES
WILLSBORO 12 MI.
WHALLONSBURG 1.7 MI.
NORTH WEST BAY
Westport
N 315° E
LAKE CHAMPLAIN
VERMONT
NEW YORK
ESSEX CO
ADDISON CO
The Narrows
Louis Clearing Bay
Big Snake Bay
Barn Rock Bay
Rock Harbor
Partridge Harbor
Hunter Bay
North Harbor
Basin Harbor
Button Bay
Hawkins Bay
Kingsland Bay
Porter Bay
Kellog Bay
FERRISBURG
Ferrisburg
Vergennes
Porterboro Sch
Basin Harbor Sch
Gage Sch
Webster Sch
Sand Road Sch
Cold Spring Bay
Bluff Point
Young Bay
Barber Pt
South Bay
Camp Dudley
Moore Pt
Coll Bay
White Bay
Spaulding Bay
Panton
West Panton Sch
PANTON
East Panton Sch
OTTER CREEK
WALTHAM
Stevenson Bay
Mullen Bay
Potash Pt
Potash Bay
Potash Sch
Goodrich Corner
Addison
West Addison
Oven Pt
Elm Pt
ADDISON
Smith Sch
Owls Head Bay
Vanderhoof Sch
Craig Harbor
Port Henry
(BM 108)
Crane Pt
Chimney Point
LAKE CHAMPLAIN TOLL BRIDGE
Orchard Pt
FORT ST FREDERIC RUINS
FORT CROWN POINT RUINS
Coffin Pt
Willow Pt
BULLWAGGA BAY
CROWN POINT
Nortontown Sch
Willmarth Sch
Childs Sch
Crane Sch
Pratt Sch
BRIDPORT
CORNWALL
LEMON FAIR R
N 270° E
Lapstone Pt
Palmer Corner
Hawthorn Sch
Mapped by the Geological Survey
1945
CROWN POINT 4.5 MI.
TICONDEROGA 12 MI.
1.8 MI. TO N.Y. 9N & 22
TICONDEROGA 14 MI.
SCALE 1:62500
BRIDPORT 3.1 MI.
MIDDLEBURY 11 MI.
BRIDPORT 1.1 MI.
FAIR HAVEN 29 MI.
ROAD CLASSIFICATION
Heavy-duty
Light-duty
Medium-duty
Unimproved dirt
U.S. Route
State Route
UTM GRID AND 1967 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET
CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL
FOR SALE BY U.S. GEOLOGICAL SURVEY, WASHINGTON, D.C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST
Polyconic projection. 1927 North American datum
10,000 foot grids based on New York (East) and Vermont rectangular coordinate system
1000-meter Universal Transverse Mercator grid ticks, zone 18, shown in blue
PORT HENRY, N.Y.-VT.
N4400—W7315/15
1945
AMS 6372 III—SERIES V721

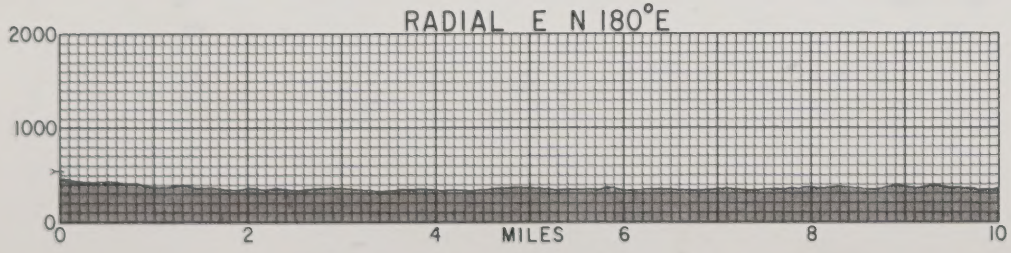
FIGURE 4I

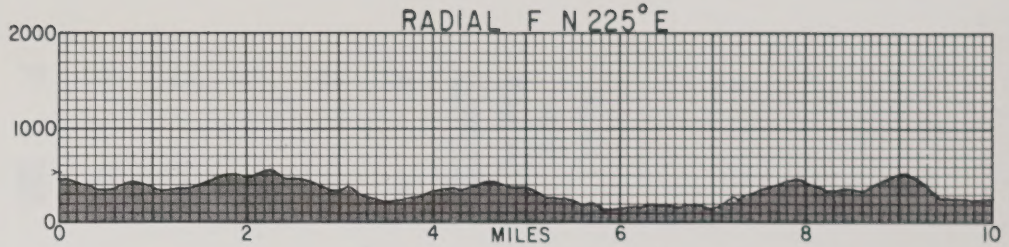


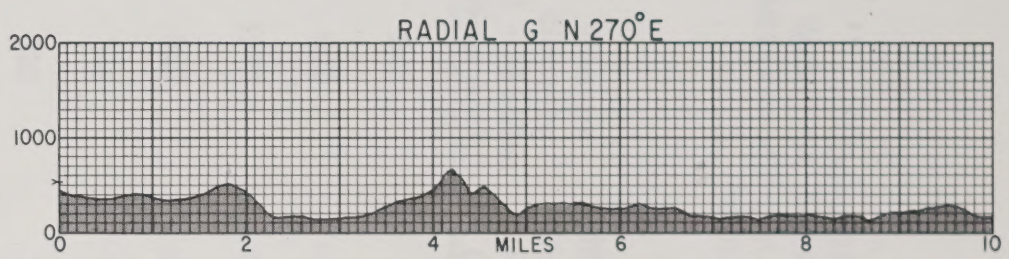


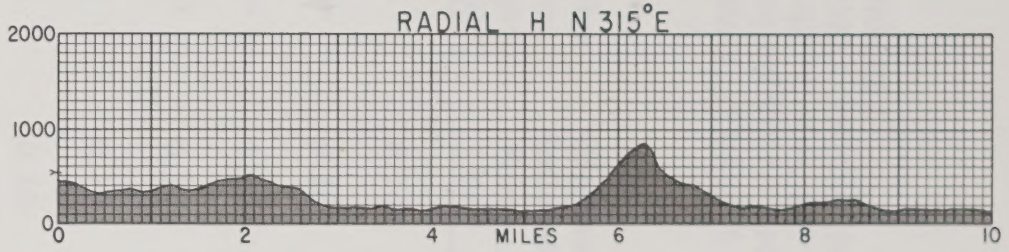












➢ RADIATION CENTER = 534 FEET ABOVE MEAN SEA LEVEL
Data obtained from topographic maps published by the U.S. Geological Survey.

FIGURE 5
RADIAL PROFILE GRAPHS
WRMC-FM 100 W -37 FT. CH. 219 91.7 MHz
MIDDLEBURY COLLEGE PRESIDENT AND FELLOWS
MIDDLEBURY, VERMONT

Prepared by
Lohnes and Culver Washington, D. C.
April, 1979

FIGURE 6
ELEVATION AND CONTOUR DATA
WRMC-FM 100 W -37 FT. CH. 219 91.7 MHz
MIDDLEBURY COLLEGE PRESIDENT AND FELLOWS
MIDDLEBURY, VERMONT

Radial and Bearing (Degrees)		Average Elevation 2 - 10 Miles (Feet AMSL)	Effective Antenna Height (Feet)	Effective Radiated Power (kw)	Distance to Predicted Contours 70 dbu (Miles)	60 dbu (Miles)
A	0	343	191	0.10	2.8	4.8
B	45	898	-364*	0.10	2.0	3.5
C	90	1272	-738*	0.10	2.0	3.5
D	135	880	-346*	0.10	2.0	3.5
E	180	346	188	0.10	2.8	4.8
F	225	320	214	0.10	2.9	5
G	270	250	284	0.10	3.3	5.9
H	315	261	273	0.10	3.2	5.8

Height of radiation center above mean sea level 534 feet
Height of average terrain above mean sea level 571 feet
Height of radiation center above average terrain -37 feet

*Antenna height of 100 feet above average terrain used to predict contours

NORTH LATITUDE: 44° 00' 30"
WEST LONGITUDE: 73° 10' 45"

Prepared by

Lohnes and Culver

Washington, D. C.

April, 1979

FIGURE 7
PREDICTED CONTOURS
WRMC-FM 100 W -37 FT. CH. 219 91.7 MHz
MIDDLEBURY COLLEGE PRESIDENT AND FELLOWS
MIDDLEBURY, VERMONT

Prepared by
Lohnes and Culver Washington, D. C.
April, 1979

FCC Form 340 | FEDERAL COMMUNICATIONS COMMISSION | Section V-B

FM ENGINEERING DATA

Name of applicant: Middlebury College President and Fellows

FOR COMMISSION USE ONLY
File No.

1. Purpose of authorization applied for:
☐ Construct a new station ☒ Make changes in authorized radio station
If this is not for a new station, summarize briefly the nature of the changes proposed.

Increase ERP to 100 W

2. Facilities requested: WRMC-FM

Frequency	Transmitter power output
Ch. 219 91.7 MHz	240 Watts

3. Proposed transmitter location

State	County	City
Vermont	Addison	Middlebury

Street Address (or other identification)
Gifford Hall - Hepburn Rd.

Remote control point location

State	City or town

Street Address (or other identification)
Same as studio

4. Proposed location of main studio

State	County
Vermont	Addison

City or town	Street Address
Middlebury	Redfield Proctor Hall

Other studios proposed

5. Transmitter

Make: LPB

Type No.	Rated Power
FM-300SS	300 W

(If the above transmitter has not been accepted for licensing by the F.C.C., attach as Exhibit No. a complete showing of transmitter details. Showing should include schematic diagram and full details of frequency control. If changes are to be made in licensed transmitter include schematic diagram and give full details of change.)

6. Transmission line proposed to supply power to the antenna from the transmitter

Make	Type No.	Description
Andrew	FHJ5	Heliax

Size (nominal transverse dimension) in inches	Length in feet	Rated efficiency in percent for this length
7/8	50	95

7a. Antenna structure

Is the proposed construction in the immediate vicinity or does it serve to modify the construction of any standard broadcast station, FM broadcast station, television broadcast station, or other class of radio station? ☐ Yes ☒ No
If "Yes", attach as Exhibit No. complete engineering data thereon.

Submit as Exhibit No. E a vertical plan sketch for the proposed total structure (including supporting building if any) giving heights above ground in feet for all significant features.

Overall height in feet above ground. (Without obstruction lighting)	Overall height in feet above mean sea level. (Without obstruction lighting)
90	550

Overall height in feet above ground. (With obstruction lighting)	Overall height in feet above mean sea level. (With obstruction lighting)
Not Required	

Height of antenna radiation center in feet above mean sea level.
534

Geographical Coordinates of Antenna (To nearest second)
North Latitude ° ' " West Longitude ° ' "
44° 00' 35" 73° 10' 45"

b. Antenna data

Make	Type No. or description	No. of sections
Phelps Dodge	CP-1000-1	1

Effective free space field intensity at one mile in mv/m for one kilowatt antenna input power	Antenna field gain	Antenna power gain
91 mV/m/kW@ 1 mile	.663	.44

Is horizontal polorization proposed? ☒ Yes ☐ No
If "No", attach as Exhibit No. complete engineering data on the antenna and the effective radiated power proposed.

Is directional antenna proposed? ☐ Yes ☒ No
If "Yes", attach as Exhibit No. complete engineering data thereon.

8. If this is a major environmental action submit as Exhibit No. a sufficient number of aerial photographs taken in clear weather at appropriate altitudes and angles to show the nature of the surrounding terrain in the vicinity of the proposed transmitter site. The photographs must be marked so as to show compass directions. Photographs taken in eight different directions from an elevated position on the ground will be acceptable in lieu of the aerial photographs if the area can be clearly shown. Give date photographs were taken.

9. Proposed Operation

Transmitter power output in kilowatts	Power dissipation within transmission line in kilowatts
0.240	.012
Antenna input power in kilowatts	**Effected radiated power in kilowatts**
0.228	0.100

10. Modulation monitor

Make	Type No.
Belar	FMM-1 & FMS-1

11. (a) Attach as Exhibit a map(s) (topographic where obtainable, such as U. S. Geological Survey quadrangles) within 15 miles of the proposed transmitter location. In addition the following will be indicated:

(1) Proposed transmitter and main studio locations accurately plotted;

(2) Transmitter location and call letters of all known radio stations (except amateur) and the location of established commercial and government receiving stations within 2 miles of the proposed transmitter location;

(3) Character of the area within 2 miles of transmitter location, suitably designated as to residential, business, industrial, and rural nature;

(4) At least eight radials each extending to a distance of ten or more miles from the proposed transmitter location.

(b) Attach as Exhibit No. E profile graphs for the radials in a (4) above. Each graph shall show the elevation of the antenna radiation center. Identify each graph by its bearing from the proposed transmitter location. Direction true north shall be zero azimuth and angles measured clockwise. Show source of topographical data on each. Show scale of miles.

12. From the profile graphs in 11(b), for the eight mile distance between two and ten miles from the proposed transmitter location, and in accordance with the procedure prescribed in Section 73.313 of the Commission's Rules, supply the following tabulation of data: (If proposed location is adjacent to the sea coast or the Great Lakes omit from this tabulation all radials which lie over water substantially the entire distance between two miles from the proposed transmitter location and the predicted 50 microvolt per meter contour.)

Radial bearing (degrees true)	Average elevation of radial (2-10 mi.) in feet above mean sea level	Height in feet of antenna radiation center above average elevation of radial (2-10-mi.)	Predicted distance in miles to the 1 mv/m contour	Predicted distance in miles to the 50 uv/m contour
0	feet	feet	mi.	mi.
SEE EXHIBIT E				

Antenna height above average terrain _____ feet

(Average of above listed heights)

13. Environmental statement. See Part 1, Subpart I of the rules.

Would a Commission grant of your application be a major action as defined by Section 1.1305 of the Commission's Rules?

☐ YES If yes, submit as Exhibit No. the required statement in accordance with Section 1.1311 of the Commission's Rules.

☒ NO If no, explain briefly.

Change antenna and transmitter and effective radiated power - increase only.

I certify that I represent the applicant in the capacity indicated below and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief.

Date 4/25/79

Signature Robert D. Cubun

(Check appropriate box)

☐ Technical Director ☐ Chief Operator

☒ Registered Professional Engineer ☐ Other (specify)

☒ Consulting Engineer

Address 1156 15th Street, N. W. (Include ZIP Code)

Washington, D. C. 20005

Telephone No. 202-296-2722 (Area Code)

Old Chapel

FCC Form 340
May 1977

Approved by GAO
B-180227(R0182)

FEDERAL COMMUNICATIONS COMMISSION

APPLICATION FOR AUTHORITY TO CONSTRUCT OR MAKE CHANGES IN A NONCOMMERCIAL EDUCATIONAL TV, FM, OR STANDARD BROADCAST STATION

INSTRUCTIONS

A. This form is to be used only in applying for authority to construct a new noncommercial educational TV, FM, or Standard broadcast station or to make changes in an existing station. This form consists of this part, Section I, and the following sections:

Section II, Legal Qualifications of Broadcast Applicant
Section III, Financial Qualification of Broadcast Applicant
Section IV, Statement of Program Service of Broadcast Applicant
Section V-A, Standard Broadcast Engineering Data
Section V-B, FM Broadcast Engineering Data
Section V-C, Television Broadcast Engineering Data
Section V-G, Antenna and Site Information
Section VI, Equal Employment Opportunity Program

B. PREPARE THREE COPIES of this form and all exhibits. Sign one copy of Section I. Prepare one additional copy (a total of four) of Section V-G and associated exhibits. File all the above with the Federal Communications Commission, Washington, D. C. 20554. APPLICANTS FILING FOR FINANCIAL ASSISTANCE FROM THE DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE (HEW) SHOULD SUBMIT THIS APPLICATION TO THE FCC AT LEAST 90 DAYS *PRIOR* TO FILING WITH HEW. Applicants filing with the FCC *after* this time should *not* expect FCC approval in time to receive HEW funding. Applicants should check with HEW for proper HEW filing dates. Applicants applying for funding from other government agencies should check with that agency *and* the FCC to determine filing deadlines for both that agency *and* the FCC.

C. Number exhibits serially in the space provided in the body of the form and list each exhibit in the space provided on page 2 of this Section. Show date of preparation of each exhibit, antenna pattern, and map, and show date when each photograph was taken.

D. The name of the applicant stated herein shall be the exact corporate name, if a corporation; if an unincorporated association, the exact name of the association; if a governmental or public educational agency, the exact name of such agency. The applicant must notify the Commission of any change of address.

E. Information called for by this application which is already on file with the Commission *(except that called for in Section III which is more than 90 days old and in Section V-G)* need not be refiled in this application provided (1) the information is now on file in another application or FCC Form filed by or on behalf of this applicant; (2) the information is identified FULLY by reference to the file number (if any) the FCC form number, and the filing date of the application or other form containing the information and the page or paragraph referred to, and (3) after making the reference, the applicant states: "No change since date of filing." Any such reference will be considered to incorporate into this application all information, confidential or otherwise, contained in the application or other form referred to. The incorporated application or other form will thereafter, in its entirety, be open to the public. (See Section 1.526 of the Commission's Rules and Regulations, "Records to be maintained locally for public inspection by applicants, permittees, and licensees.")

F. This application shall be personally signed by the applicant, if the applicant is an individual; by one of the partners, if the applicant is a partnership; by an officer, if the applicant is a corporation; by a member who is an officer, if the applicant is an unincorporated association; by such duly elected or appointed officials as may be competent to do so under the laws of the applicable jurisdiction, if the applicant is an eligible government entity; or by the applicant's attorney in case of the applicant's physical disability or of his absence from the United States. The attorney shall, in the event he signs for the applicant, separately set forth the reason why the application is not signed by the applicant. In addition, if any matter is stated on the basis of the attorney's belief only (rather than his knowledge), he shall separately set forth his reasons for believing that such statements are true.

G. Before filling out this application, the applicant should familiarize himself with the Communications Act of 1934, as amended, Parts 1, 2, 17, and 73 of the Commission's Rules and Regulations.

H. BE SURE ALL NECESSARY INFORMATION IS FURNISHED AND ALL PARAGRAPHS ARE FULLY ANSWERED. IF ANY PORTIONS OF THE APPLICATION ARE NOT APPLICABLE, SPECIFICALLY SO STATE. DEFECTIVE OR INCOMPLETE APPLICATIONS MAY BE RETURNED WITHOUT CONSIDERATION.

THIS BLOCK FOR COMMISSION USE ONLY

File No.

1. NAME OF APPLICANT *(See Instruction D)*

The President and Fellows of Middlebury College

STREET ADDRESS

Old Chapel

CITY	STATE	ZIP
Middlebury	VT	05753

2. NAME OF PERSON TO WHOM COMMUNICATIONS SHOULD BE SENT, IF DIFFERENT FROM ITEM 1.

same

STREET ADDRESS

CITY	STATE	ZIP

3(a). PURPOSE OF APPLICATION *(Put "X" in appropriate box)*

☐ New station
☒ Major change in existing station facilities
☐ Minor change in existing station facilities

(b). If this application is for a change in existing facilities, complete Section I plus any other Sections necessary to show all substantial changes in information previously filed with the Commission, and indicate below the Sections completed and filed with this application.

	Section II		Section V-A
X	Section III	X	Section V-B
	Section IV-A		Section V-C
	Section IV-B		Section V-G
			Section VI

(c). In the space below refer to information already on file with the Commission which, in accordance with Instruction E, may be incorporated in this application by proper reference.

File or Form No. and Date	Section No.	Paragraph No.
Form 342 11/23/77	IV	

4. REQUESTED FACILITIES

TYPE OF STATION

☐ AM ☒ FM ☐ TELEVISION

FREQUENCY	CHANNEL NO.	CALL SIGN
91.7 MHz	219	WRMC-FM

HOURS OF OPERATION	POWER IN KILOWATTS	
	NIGHT	DAY
unlimited	0.1	0.1

ANTENNA HEIGHT ABOVE AVERAGE TERRAIN IN FEET *(FM and TV only)*

-37 feet

STATION LOCATION

CITY	STATE
Middlebury	Vermont

(All previous editions of this form are cancelled.)

THE APPLICANT hereby waives any claim to the use of any particular frequency or of the ether as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934).

THE APPLICANT represents that this application is not filed for the purpose of impeding, obstructing, or delaying determination on any other application with which it may be in conflict.

THE APPLICANT acknowledges that all the statements made in this application and attached exhibits are considered material representations, and that all the exhibits are a material part hereof and are incorporated herein as if set out in full in the application.

CERTIFICATION

I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Signed and dated this_____ day of _____, 19__.

(This Section should not be dated and signed until all Sections and Exhibits have been prepared and attached)

The President and Fellows of Middlebury College
(NAME OF APPLICANT)

By _____
(SIGNATURE)

Title Treasurer, Middlebury College

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND IMPRISONMENT. U.S. CODE, TITLE 18, SECTION 1001.

FCC NOTICE TO INDIVIDUALS REQUIRED BY THE PRIVACY ACT

The solicitation of personal information requested in this application is authorized by the Communications Act of 1934, as amended. The principal purpose(s) for which the information will be used is to determine if the benefit requested is consistent with the public interest. The staff, consisting variously of attorneys, accountants, engineers, and application examiners, will use the information to determine whether the application should be granted, denied, dismissed, or designated for hearing. If all the information requested is not provided, the application may be returned without action having been taken upon it or its processing may be delayed while a request is made to provide the missing information.

Accordingly, every effort should be made to provide all necessary information.

THE FOREGOING NOTICE IS REQUIRED BY THE PRIVACY ACT OF 1974, P.L. 93-579, DECEMBER 31, 1974, 5 U. S. C. 552a (e) (3).

If applicant is represented by legal or engineering counsel, state name and post office address: Lohnes and Culver, Consulting Radio Engineers 1156 15th St. N.W. Washington DC 20005

EXHIBITS furnished as required by this form:

Exhibit No.	Section and Para. No. of Form	Name of officer or employee (1) by whom or (2) under whose direction exhibit was prepared (show which)	Official title
ATTACH 1	2	Roger Martin	Assistant Secretary
ATTACH 2	2	Roger Martin	Assistant Secretary
E	V-B	Robert Culver	Consulting Engineer
1	2	Roger Martin	Assistant Secretary
2	3	Carroll Rikert, Jr.	Treasurer
3	3	Roger Martin	Assistant Secretary

FCC Form 340 | FEDERAL COMMUNICATIONS COMMISSION | Section II

LEGAL QUALIFICATIONS OF BROADCAST APPLICANT

Name of Applicant: The President and Fellows of Middlebury College

FOR COMMISSION USE ONLY

File No.

INSTRUCTIONS

As used in this Section, the words "party to this application" mean: (1) in the case of a corporate applicant with outstanding stock, all officers, directors, stockholders of record, persons owning the beneficial interest in any stock, subscribers to any stock, and persons who voted any of the voting stock at the last stockholders meeting; (2) in the case of any other applicant which is not a governmental or public educational agency, all executive officers, members of the governing board, and owners or subscribers to any membership or ownership interest in the applicant; (3) in the case of an applicant which is a governmental or public educational agency, the members of the governing board and chief executive officers thereof.

1. Describe clearly and in detail the character and legal nature of the applicant (a corporation, unincorporated legal entity, or public body; a public or private educational institution, a State, county, city or other political subdivision, a board of education, school board or district, board of regents or trustees, or other department or unit of a state or one of its political subdivisions; a nonprofit corporation or unincorporated association formed for the purpose of operating a noncommercial educational broadcasting station) including the State, District, Territory or Possession under the laws of which the applicant is organized.

Non-profit corporation, chartered in 1800

2. a. State whether applicant is a nonprofit educational institution. Yes [X] No [ ]

b. If the applicant is a nonprofit educational organization, describe in Exhibit No. how the proposed station will be used for the advancement of an educational program. This does not apply if applicant is applying for change in facilities.

3. Submit as Exhibit No. three copies, one of which must be properly certified of

(a) If applicant is a corporation, the articles of incorporation (or charter) and the by-laws (with amendments to both, if any), certified by the Secretary of State or other appropriate official. Charter previously filed - no changes since FCC Form 342 **

(b) If applicant is an unincorporated association, or other legal entity, the articles of association or other legal instrument under which applicant is organized showing the purposes thereof, and the by-laws, if any (with amendments to both, if any).

(c) If applicant is a public educational institution, the laws (and amendments thereof) under which it was created with an appropriate citation as to the source thereof.

(d) If the applicant is a political subdivision, or a board, department or unit thereof, the laws (and amendments thereof) under which said subdivision, board, department or unit was created with an appropriate citation as to the source thereof.

4. Indicate specifically by reference to page and paragraph of the articles of incorporation or of association, or of the political subdivision, the charter powers relied upon by the applicant to show that it is legally empowered to construct and operate the proposed station. Charter section 5

5. Are all parties to this application citizens of the United States? Yes [X] No [ ]

If "No," state the name and citizenship of each party who is not a citizen of the United States.

6. a. Is applicant or any party to this application a representative of an alien or of a foreign government? Yes [ ] No [X]

b. If applicant is a corporation, is more than 20 percent of the capital stock owned of record or may it be voted by aliens or their representatives, or by a foreign government or a representative thereof, or by any corporation organized under the laws of a foreign country? not applicable Yes [ ] No [ ]

c. If applicant is a corporation and is controlled by another corporation or corporations, is more than 25 percent of the capital stock of such controlling corporation or corporations owned of record or may it be voted by aliens, their representatives, or by any corporation organized under the laws of a foreign country? not applicable Yes [ ] No [ ]

d. If the answer to any of the foregoing parts of this paragraph is "Yes," submit as Exhibit No. a full disclosure concerning the persons and matters involved. not applicable

7. a. Has the applicant or any party to this application been fully adjudged guilty by a Federal court of unlawfully monopolizing or attempting unlawfully to monopolize radio communications, directly or indirectly, through the control of the manufacture or sale of radio apparatus, through exclusive traffic arrangements, or by any other means, or to have been using unfair methods of competition? (See Section 313 of the Communications Act of 1934, as amended) Yes [ ] No [X]

b. If "Yes," submit as Exhibit No. a full disclosure concerning the persons and matters involved, identifying the court and the proceedings (by dates and file numbers) stating the facts upon which the proceeding was based or the nature of the offense committed, and the disposition of the matter.

not applicable

** filed 11/23/77. By-Laws herewith--Attachment I

8. Is applicant directly or indirectly controlled by another legal entity? Yes ☐ No ☒

If "Yes", state below the name of such other legal entity, and state how such control, if any, exists and the extent thereof.

9. Give the following information as to applicant's officers, members of governing board, and holders of 1% or more ownership interest (if any).

Name and Residence	Office Held	Citizenship	Principal Profession or Occupation	By whom appointed or elected
see attachment 2				

10. Television applicants which are nonprofit organizations rather than governmental bodies or educational institutions submit as Exhibit No. evidence that officers, directors, and members of the governing board are broadly representative of the educational, cultural, and civic groups in the community. This does not apply if applicant is applying for change in facilities.

11. The Commission is seeking in this paragraph information as to contracts and arrangements now in existence, as well as any arrangements or negotiations, written or oral, which relate to the present or future ownership, control or operation of the station; the questions must be answered in the light of this instruction.

a. Applicant's control over the station is to be by reason of: (Indicate by check mark)

☒ Ownership ☐ Lease ☐ Other Authority

b. Name and address of the owner of the station (if other than the applicant)

c. Will the applicant have and maintain absolute control of the station, its equipment, and operation, including complete supervision of the programs to be broadcast? Yes ☒ No ☐

If "No," explain.

d. Are there any documents, instruments, contracts or understandings relating to ownership, use or control of the station or facilities, or any right or interest therein? Previously filed 11/23/77 FCC Form 342--no change since date of filing Yes ☒ No ☐

If "Yes," attach as Exhibit No. three copies of all such documents, instruments or contracts and state the substance of oral contracts or understandings.

12. a. If the execution of this application was duly authorized by a governing body, give date and place of the meeting of said governing body.

January 13, 1979, Middlebury, Vermont

b. Submit as Exhibit No. 1 three copies, one of which must be certified, of the resolution showing: (i) a quorum of members having authority to act was present, (ii) the resolution was voted favorably by the members required, (iii) the officer executing the application was authorized to do so.

13. Does applicant or any party to this application have now, or has applicant or any such party had, any interest in, or connection with, the following:

a. Any standard, FM, or television broadcast station? Yes ☐ No ☒

b. Any application pending before the Commission? Yes ☐ No ☒

c. Any broadcast station the license or C.P. of which has been revoked: Yes ☐ No ☒

If the answer to any of the foregoing parts of this paragraph is "Yes," show particulars in the table below:

(1) Name of party having such interest	(2) Nature of interest or connection (giving dates)	(3) Name of other applicant or call letters of station	(4) FCC File Number

FCC Form 340 | FEDERAL COMMUNICATIONS COMMISSION | Section III

FINANCIAL QUALIFICATIONS OF BROADCAST APPLICANT

Name of Applicant: The President and Fellows of Middlebury College

FOR COMMISSION USE ONLY

File No.

INSTRUCTIONS

In the questions that follow, the Commission is seeking information as to contracts and arrangements now in existence, as well as any arrangements or negotiations, written or oral, which relate to the present or future financing of the station; the questions must be answered in the light of this instruction.

1a. Give estimated costs for installation of facilities and equipment for which application is made. The costs shown for the following must be the costs in place and ready for service, including the amounts for labor, supervision, materials, supplies, and freight. To the extent that all or part of the items below are covered by a contract or contracts containing a single quotation, the details of such contract or contracts shall be stated in lieu of the estimates called for below; but, in any event, the cost figures must represent costs in place and ready for service.

Transmitter proper including tubes	Antenna system, including tower, antenna ground system, coupling equipment, transmission line	Frequency and modulation monitors
$ 4,695	$ 735	$ 2,900
Installation costs	Installation costs	Installation costs
Labor $ 500	Labor $ 500	Labor $ 500
Supervision $	Supervision $	Supervision $
Materials & supplies $	Materials & supplies $	Materials & supplies $
Freight $	Freight $	Freight $

Studio technical equipment, microphones, transcription equipment, cameras, etc.	Acquiring land	Acquiring, Constructing or Modifying buildings	Other items (state nature)
$ 2,490	$	$	$
Installation costs			
Labor $ 500			
Supervision $			
Materials & Supplies $			
Freight $			

Total Cost $ 12,820

Give Estimated cost of operation for first year $ 22,940

1b. State the basis of the estimates in (1a.) above. Proposal submitted

1c. The proposed construction is to be financed and paid for in the following manner (including specified statements as to the approximate amount to be met and paid for from each source). The financial plan should provide for any additional construction costs should the actual cost exceed the original estimated cost.

Existing capital	New capital	Loans from banks or others	State, County, Municipal appropriations
$ 12,820	$	$	$
Federal Grants	**Donations**	**Credit, deferred payments, etc.**	**Other sources (specify)**
$	$	$	$

1d. Provide full information as to the sources of funds for the first year's operation of the proposed station, including the following:

Source	On hand	Anticipated	Total
(1) State, County, Municipal appropriations			
Student fee appropriation (2) Schools, colleges, or universities		$22,920	$22,920
(3) Foundations (specify)			
(4) Civic Groups			
(5) Individual donations			
(6) Project Income (production services and contracts, tuition, study guides, non-broadcast activities, etc.)			
(7) Other (specify)			
TOTAL		$22,920	$22,920

2. With respect to the funds referred to in Question 1(c) and 1(d) above, furnish information showing the availability of such funds, including:

a. for governmentally appropriated funds, the date, amount, appropriating body, and object of the appropriation, with any restrictions thereon;

b. for other than governmentally appropriated funds or Federal grants, submit as Exhibit No. 2 a detailed balance sheet of applicant, showing financial position as at the close of a month within 90 days of the date of application. If the status and composition of any assets and liabilities on the balance sheet are not clearly defined by their respective titles, attach as Exhibit No. schedules which give a complete analysis of such items;

c. for all applicants, attach as Exhibit No. 3 a copy of the applicant's current annual budget, insofar as it relates to existing broadcasting operation(s). $19,398.73

3. Furnish the following information with respect to the non-governmental applicant only. If the answer is "None" to any or all items, specifically so state:

a. Amount of funds on deposit in bank or other Depository

Not Applicable *

b. Name and address of the bank in which deposited

Not Applicable *

c. Name and address of the party in whose name the money is deposited

Not Applicable *

d. Conditions of deposit (in trust, savings, subject to check, on time deposit, who may draw on account and for what purpose, or other condition)

Not Applicable *

e. Whether the funds were deposited for the specific purpose of constructing and operating the station

Not Applicable *

* See explanation re question 2B above - Exhibit 2

FCC Form 340 | FEDERAL COMMUNICATIONS COMMISSION | Section IV

STATEMENT OF PROGRAM SERVICE OF BROADCAST APPLICANT	Name of applicant: The President and Fellows of Middlebury College	FOR COMMISSION USE ONLY File No.

1. Attach as Exhibit No. the applicant's purpose and objective in establishing the proposed station and a statement of proposed program policies. If applicant already has such information on file, indicate file number and detail changes, if any.
See FCC form 342, section IV filed 11/23/77. No change since date of filing.

2. Attach as Exhibit No. a proposed weekly schedule of programs together with a brief description of programs not recognizable by their titles. (It is not expected that the licensee will or can adhere inflexibly in day-to-day operation to the representation made here. However, since such representation will constitute, in part, the basis upon which the Commission acts on the application, time and care should be devoted to the preparation of the reply so that it will reflect accurately the applicant's responsible judgment of his proposed programming policy.) If applicant already has such information on file, indicate file number and detail changes, if any.

NOTE: The following are examples of Program data:

1. Sources of programs are defined as follows:

A local program (L) is any program originated or produced by the station, employing live talent more than 50% of the time, and using the studios or other facilities of the station. A local program recorded or filmed by the station for later transmission shall be classified as local. A program produced by a station and fed to a network shall be classified by the originating station as local. Programs primarily featuring phonograph records, syndicated or feature films or taped or transcribed programs, shall not be classified as local even though a station personality appears incidentally to introduce such material.

A record program (REC) (Radio only) is any program, not falling within the definition of "local" above, which utilizes phonograph records, electrical transcriptions or taped music, with or without commentary by a local announcer, or other station personnel.

A network program (N) is any program furnished to the station by a network (national, regional or special) such as NET, NAEB Radio Tape Network, Eastern Educational Network, Educational Radio Network, etc.

Other Programs (OTHER) are any programs not defined above, including, without limitation, syndicated film, taped or transcribed programs, and feature films.

2. Types of educational programs are defined as follows:

Instructional (I) includes all programs designed to be utilized by any level of educational institution in the regular instructional program of the institution. In-school, in-service for teachers, and college credit courses are examples of instructional programs.

General Educational (GEN) is an educational program for which no formal credit is given.

Performing Arts (A) is a program, live or recorded, in which the performing aspect predominates such as drama or concert, opera or dance.

Public Affairs (PA) includes talks, discussions, speeches, documentaries, editorials, forums, panels, round tables, and similar programs primarily concerning local, national, and international affairs or problems.

Light Entertainment (LE) includes programs consisting of popular music or other light entertainment.

Other (O) includes all programs not falling within the definitions of Instructional, General Education, Performing Arts, Public Affairs or Light Entertainment. Such programs as news or sports should be reported as "other."

3. Will the applicant transmit any program which will promote any activity other than education in which the applicant or any party to the application is engaged or financially interested, whether directly or indirectly?

☐ YES If yes, submit as Exhibit a list of such programs together with comments showing the relationship of the
☐ NO programs to the applicants other interests.

4. Attach as Exhibit a description of facilities, staff and equipment available to the applicant for his development and production of program material. Include here such items as, for example, studio facilities; service subscribed to and libraries of program material maintained; cameras, tape recorders, remote equipment, etc.; staff personnel used in program production. If applicant already has such information on file, indicate file number and detail changes if any.

5. Will the proposed station be affiliated with any network?

☐ YES If yes, give the name of the network(s).

☐ NO

6. State what percentage of the station's ordinary broadcast week will be devoted to instructional programming (See definition of instructional programming above).

7. Has the applicant placed in its public inspection file the required documentation relating to its efforts to ascertain community problems and needs?

☐ YES

☐ NO If no, attach as Exhibit an explanation.

Radio applicants attach as Exhibit the narrative description of this survey (as required by Section 1.527 (b) of the Commission's Rules),

8. Has the applicant placed in its public inspection file the list of no more than 10 significant problems and needs which in the applicant's judgment, warrant treatment during the coming term, and proposed typical and illustrative programming to be broadcast in response thereto?

☐ YES Attach this listing as Exhibit

☐ NO

9. Television applicants attach as Exhibit the Community Leader Checklist for your ascertainment effort conducted six months prior to filing.

NOTE: The NET, NAEB Radio Tape Network, Educational Radio Network, and the Eastern Educational Network are examples of educational networks.

ATTACHMENT A

Guidelines to the Model EEO Program

The model EEO program, which was adopted by the Commission in Docket No. 20550, provides comprehensive and clearly-defined practices to assist the non-exempt broadcast applicant in developing an effective EEO program for its proposed or existing station. The EEO program designed for a particular station should be reasonably responsive to the elements of the model program to the extent they are appropriate in terms of station size, location, and the like. However, the data requirements, which are set forth in Sections IV, VI, VII and VIII of the model, are essential for self-evaluation and must be part of what-ever program is devised by the broadcast applicant. While the most current information available should be used in responding to these elements, statements of policy and general descriptions of a station's EEO practices, which were set forth in earlier-filed EEO program, can be incorporated by reference where the applicant does not intend to augment or otherwise modify its program in that respect during the forthcoming license term. The specific elements which should be addressed are as follows:

I. General Policy

The first section of the program should contain a statement by the applicant that it will afford equal employment opportunity in all personnel actions without regard to race, color, religion, national origin or sex, and that it has adopted an EEO program which is designed to fully utilize the skills of minorities and women in the relevant available labor force.

II. Responsibility For Implementation

This section calls for the name and title of the official designated by the licensee with responsibility for implementation of the station's program.

III. Policy Dissemination

The purpose of this section is to disclose the manner in which the station's EEO policy is communicated to employees and prospective employees. In this respect, the applicant's program should disclose whether it: (a) utilizes an employment application form which contains a notice informing job applicants that discrimination is prohibited and that persons who believe that they have been discriminated against may notify appropriate governmental agencies; (b) posts a notice which informs job applicants and employees that the licensee is an equal opportunity employer and that they may notify appropriate governmental authorities if they believe that they have been discriminated against; and (c) where applicable, seeks the cooperation of labor unions represented at the station in the implementation of its EEO program and in the inclusion of non-discrimination provisions in union contracts. The applicant should also set forth any other methods it utilizes in conveying its EEO policy (e.g., orientation materials, on-air announcements, station newsletter) to employees and prospective employees.

IV. Recruitment

In this section, the applicant should set forth the recruitment sources and other techniques it uses to increase the pool of minority and female job applicants. Additionally, the applicant should list all minority and female applicant referral sources which the station has contacted in the previous 12 months and the number of individuals who were referred from each named source. Note: Not all of the categories of recruitment sources listed in the model program need be utilized if there are a sufficient number of minority and females applying for positions at the station. The purpose of the listing is to determine whether the specialized referral sources are producing the desired results. Sources which prove to be non-productive in terms of qualified minority and female applicants should not be relied on and new sources should be sought.

V. Training

Training programs are not mandatory. Each applicant is expected to decide, depending upon its own individual situation, whether a training program is feasible and would assist it in its effort to increase the pool of available minority and female applicants. Also, where an applicant already has employee training programs, the information reported in this element of the model program should enable it to ascertain whether minority and female employees have the same opportunity to participate as other employees. Information submitted with respect to any training programs utilized should include a report covering at least the 12 month period prior to the filing of the application, but may encompass the entire license period, if so desired.

Additionally, the applicant may set forth any other assistance to students, schools or colleges which is designed to be of benefit to minorities and women interested in entering the broadcasting field. The beneficiary of such assistance should be listed, as well as the form of assistance, such as contributions to scholarships, participation in work/study programs, and the like.

VI. Availability Survey

Pursuant to this section the applicant should state the percentages of women, Blacks, Orientals, American Indians, and persons with Spanish-surnames in the station's labor recruitment area. Generally speaking, where a station is located in a Standard Metropolitan Statistical Area, the S.M.S.A. should be considered as the labor recruitment area. Where a station is not located in an S.M.S.A., the city of license or county figures should be used. The necessary data may be obtained from state employment agencies' "Manpower Information for Affirmative Action Programs," which is available in most localities, or other publications such as "General Population Characteristics" and "General Social and Economic Characteristics," obtainable from any Department of Commerce Field Office.

Note: The inclusion of this data is designed to assist the applicant in evaluating the effectiveness of its station's EEO program. The availability survey produces a means to determine whether the station's work-force percentages bear some reasonable relationship to those reflected in the relevant available labor force.

VII. Current Employment Survey

Applicants of stations with less than 50 full-time employees are required to state whether there has been any change in their employment profile from the payroll period covered by the station's most recently filed Annual Employment Report (FCC Form 395). If there has been no change of any kind with respect to either full-time or part-time employees, the sentence to this effect should be checked. If there has been a change in the station's profile, the applicant must submit an updated Form 395 that identifies all employees under each job category by sex and race. The updated employment profile should cover the payroll period as close to the filing of the application as possible. The payroll period chosen must be specified.

Stations with 50 or more full-time employees are required to prepare and submit a list of all job titles within each Form 395 job category, with part-time and full-time status indicated. Each job title must show the number of incumbents that are male, female, Black, Spanish-Surnamed American, Oriental, and American Indian. In other words, under each applicable job category, (i.e., Officials and Managers, Professionals, Technicians, etc.,) the applicant should list each job title it includes in the category on the Form 395 and identify the number of incumbents by sex and race. This showing should reflect the station's employment profile for the payroll period as close to the filing of the application as possible. The payroll period chosen must be specified.

VIII. Job Hires

Each licensee must state the total number of persons hired for station positions, both full-time and part-time, during the 12-month period preceding the date utilized for the "*Current Employment Survey.*" This aggregate hiring information is to also include a breakout of the number of minorities and women hired. Predicated on this data and the recruitment information already compiled for the fourth element of the EEO program, the applicant must determine whether a sufficient number of minorities and women are applying for positions at the station. (The answer to the two parts of this question need not be the same. For example, a representative number of minorities may be applying, whereas the pool of women applicants may be less than sufficient.) Should either minorities or women be inadequately represented among the applicants for available positions, the applicant should analyze its recruitment techniques and referral sources and propose additional methods to expand the applicant pool of minorities and/or women.

IX. Promotion

Under this section the applicant should describe any promotional policies and practices which have benefited minority or female employees during the preceding 12 months. (For instance, the licensee might list the number of minorities and/or women elevated from part-time to full-time status, the number of those promoted from a training status, or the number that have advanced to more responsible jobs.) Also, if not listed in the "*Training*" element, the applicant may wish to note any extra effort undertaken to increase promotional opportunities for minorities and women.

X. Effectiveness of the Affirmative Action Plan

Under this section the applicant should analyze the results of its efforts to recruit, hire and promote minorities and women and explain any difficulties encountered in implementing its EEO program. One way this can be done is to compare the percentages of minorities and women on the station's current staff with their respective percentages in the relevant available labor force. (See "*Availability Survey*" and "*Current Employment Survey*" of the model program.) If the percentages do not reasonably relate, the disparity may be attributable to deficiencies in the station's recruitment, hiring, placement, training or promotional policies and practices. If so, the applicant should propose alternative policies to correct the deficiency.

ATTACHMENT B

Model Equal Employment Opportunity Program

I General Policy

It is our policy to provide equal employment opportunity to all qualified individuals without regard to their race, color, religion, national origin or sex in all personnel actions including recruitment, evaluation, selection, promotion, compensation, training and termination.

It is also our policy to promote the realization of equal employment opportunity through a positive, continuing program of specific practices designed to ensure the full realization of equal employment opportunity without regard to race, color, religion, national origin or sex.

To make this policy effective, and to ensure conformance with the Rules and Regulations of the Federal Communications Commission, we have developed an Equal Employment Opportunity Program which includes the following elements:

II Responsibility for Implementation

(Name _____ Title), is responsible for the administration and implementation of our Equal Employment Opportunity Program. It is also the responsibility of all persons making employment decisions with respect to recruitment, evaluation, selection, promotion, compensation, training and termination of employees to ensure that our policy and program is adhered to and that no person is discriminated against in employment because of race, color, religion, national origin or sex.

III Policy Dissemination

To assure that all members of the staff are cognizant of our equal employment opportunity policy and their individual responsibilities in carrying out this policy, the following communication efforts are made:

( ) The station's employment application form contains a notice informing prospective employees that discrimination because of race, color, religion, national origin or sex is prohibited and that they may notify the appropriate local, state, or federal agency if they believe they have been the victims of discrimination.

( ) Appropriate notices are posted informing applicants and employees that the station is an Equal Opportunity Employer and of their right to notify an appropriate local, state, or federal agency if they believe they have been the victim of discrimination.

( ) We seek the cooperation of the unions represented at the station to help implement our EEO program and all union contracts contain a nondiscrimination clause.

( ) Other (Specify)

_____

_____

IV Recruitment

To ensure nondiscrimination in relation to minorities and women, and to foster their full consideration in filling job vacancies, we utilize the following recruitment procedures:

( ) We attempt to maintain systematic communication, both orally and in writing, with a variety of minority and women organizations to encourage the referral of qualified minority and female applicants. Examples of such organizations contacted during the past twelve months are:

Organization/Source	Number of Referrals
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

( ) In addition to the organizations noted above, which specialize in minority and women candidates, we deal only with employment services, including state employment agencies, which refer job candidates without regard to their race, color, religion, national origin or sex. Examples of these employment referral services contacted during the past twelve months and the number of referrals are:

_____	_____
_____	_____
_____	_____

( ) When we recruit prospective employees from educational institutions such recruitment efforts include area schools and colleges with significant minority and female enrollments. Educational institutions contacted for recruitment purposes during the past twelve months and the number of referrals are:

_____	_____
_____	_____

( ) When utilizing media for recruitment purposes, help-wanted advertisements always include a notice that we are an Equal Opportunity Employer and contain no indication, either explicit or implied, of a preference for one sex over another.

( ) When we place employment advertisements in printed media some of such advertisements are placed in media which have significant circulation or are of particular interest to minorities and women. Examples of publications utilized during the past twelve months and the number of referrals are:

_____ _____

_____ _____

( ) We encourage present employees, particularly minority and female employees, to refer minority and female candidates for existing and future job openings.

V. Training

( ) Station resources and or needs are such that we are unable or do not choose to institute specific programs for upgrading the skills of employees.

( ) We provide on-the-job training to upgrade the skills of employees. Tangible benefits of such training to minority and women employees during the past 12 months may be briefly described as follows:

_____

_____

_____

( ) We provide assistance to students, schools or colleges in programs designed to enable minorities and women to compete in the broadcast employment market on an equitable basis:

Schools or Other Beneficiary	Form of Assistance
_____	_____
_____	_____
_____	_____

( ) Other (Specify)

_____

_____

VI. Availability Survey

Based on information derived from _____, the respective minority and female workforce in the station's recruitment area is as follows:

	Women	Blacks	Oriental	Am. Indian	Spanish-Surnamed
Percentage in the Workforce					

NOTE: The Following To Be Used Only If Workforce Data Is Unavailable.

Based on information derived from _____, the respective minority and female population in the station's recruitment area is as follows:

	Women	Blacks	Oriental	Am. Indian	Spanish-Surnamed
Percentage in the Population					

The above information is for: ( ) S.M.S.A. ( ) City ( ) County

( ) Other (Specify)

VII. Current Employment Survey

A. To be completed by stations with less than 50 full-time employees.

( ) There has been no change in our employment profile since the filing of our most recent Annual Employment Report.

( ) There has been a change in our employment profile since the filing of our last Annual Employment Report. Attached is an updated report identifying the incumbents under each FCC Form 395 job category for the two week period beginning _____ and ending _____.

B. To be completed by stations with 50 or more full-time employees.

( ) Attached as Exhibit No. VII B is a survey of our workforce showing a list of all job titles within each FCC Form 395 category and showing the number of incumbents who are male, female, Black, Spanish-Surnamed American, Oriental, and American Indian.

VIII. Job Hires

During the twelve month period beginning (Month - Day - Year) and ending (Month - Day - Year), we hired a total of ( ) persons of whom ( ) were minorities and ( ) were women.

( ) An analysis of our recruitment techniques, job applications, and new hires suggests that a sufficient number of qualified minorities and women (are) (are not) applying for available positions.

( ) We are expanding our recruitment sources to include:

IX. Promotion

It is our policy to provide promotions on a nondiscriminatory basis. Further, to assure that minorities and women are given due consideration for promotional opportunities, special effort is taken to encourage minorities and women to qualify and apply for advancement. During the past twelve months our policy has had the following results:

X. Effectiveness of Affirmative Action Plan

(This section should contain a brief narrative discussion of the effectiveness of the station's efforts to ensure Equal Employment Opportunity. For example, the licensee might compare the percentage of minority employees in its own workforce with the percentage of minority persons in the licensee's labor market, also setting forth information which suggests that discrepancies which may exist are not unreasonable. The licensee may also explain any difficulties it has experienced in implementing its affirmative action plan, together with any steps it proposes to take to surmount these difficulties in the future.)

NOT APPLICABLE

FCC Form 340 — FEDERAL COMMUNICATIONS COMMISSION — Section V-A

STANDARD BROADCAST ENGINEERING DATA

Name of applicant: The President and Fellows of Middlebury College

FOR COMMISSION USE ONLY

File No.

1. Purpose of authorization applied for: (Indicate by check mark)
(If application is for a new station or for any of the changes numbered B through F, complete all paragraphs of this form; if change G is of a character which will change coverage or increase the overall height of the antenna structure more than 20 feet, answer all paragraphs, otherwise complete only paragraphs 2 and 10 and the appropriate other paragraphs; for changes H through M, complete only paragraph 2 and the appropriate other paragraphs; for change N complete only paragraphs 2 and 5.)

A. ☐ Construct a new station
B. ☐ Change power
C. ☐ Change transmitter location
D. ☐ Change frequency
E. ☐ Approval of site and antenna
F. ☐ Special Service Authorization
G. ☐ Change in antenna system (including addition of FM and TV antennas)
H. ☐ Change frequency control equipment
I. ☐ Change tubes in last radio stage
J. ☐ Change system of modulation
K. ☐ Change transmitter
L. ☐ Install auxiliary or alternate main transmitter
M. ☐ Other changes (specify)
N. ☐ Change studio location

If this application is not for a new station, summarize briefly the nature of the changes proposed.

2. Facilities requested

Frequency	Hours of operation	Power in kilowatts Night	Day

3. Station location

State	City or town

4. Transmitter location

State	County
City or town	Street Address (or other identification)

5. Main studio location

State	County
City or town	Street and number, if known

6. Remote control point location

State	City or town

Street Address (or other identification)

7. Transmitter

Make	Type No.	Rated Power

(If the above transmitter has not been accepted for licensing by the F.C.C., attach as Exhibit No. a complete showing of transmitter details. Showing should include schematic diagram and full details of frequency control. If changes are to be made in licensed transmitter include schematic diagram and give full details of changes.)

8. Modulation monitor

Make	Type No.

9. Frequency monitor

Make	Type No.

10. Antenna system, including ground or counterpoise

Non-Directional Antenna: Day ☐ Night ☐

Directional Antenna:
Day only (DA-D) ☐
Night only (DA-N) ☐
Same constants and power day and night (DA-1) ☐
Different constants or power day and night (DA-2) ☐

(If a directional antenna is proposed submit complete engineering data. Show clearly whether directional operation is for day or night or both. If day and night patterns are different give full information on each pattern. This information is in addition to the information in Paragraph 10 and is submitted as Exhibit No. and signed by the engineer who designed the antenna system.)

Type radiator	Height in feet of complete radiator above base insulator, or above base if grounded.
Overall height in feet above ground. (Without obstruction lighting)	Overall height in feet above mean sea level. (Without obstruction lighting)
Overall height in feet above ground. (With obstruction lighting)	Overall height in feet above mean sea level. (with obstruction lighting)
If antenna is either top loaded or sectionalized, describe fully as Exhibit No.	

Excitation — Series ☐ Shunt ☐

Geographic coordinates to nearest second.
For direction antenna give coordinates of center of array.
For single vertical radiator give tower location.

North latitude ° ' "	West longitude ° ' "

If not fully described above, give further details and dimensions including any other antennas mounted on tower and associated isolation circuits as Exhibit No. (Height figures should not include obstruction lighting.)

Submit as Exhibit No. a plot of the transmitter site showing boundary lines, and roads, railroads, or other obstructions; and also layout of the ground system or counterpoise. Show number and dimensions of ground radials or if a counterpoise is used, show height and dimensions.

11. Attach as Exhibit No. a sufficient number of aerial photographs taken in clear weather at appropriate altitudes and angles to permit identification of all structures in the vicinity. The photographs must be marked so as to show compass directions, exact boundary lines of the proposed site, and locations of the proposed 1000 mv/m contour for both day and night operation. Photographs taken in eight different directions from an elevated position on the ground will be acceptable in lieu of the aerial photographs if the data referred to can be clearly shown.

12. Allocation Studies:

A. Attach as Exhibit No. map or maps, having reasonable scales, showing the 1000, 25, 5, 2, normally protected and interference-free contours in mv/m for both day and night operation both existing and as proposed by the application. (NOTE: The 2 mv/m night contour need not be supplied if service is not rendered thereto.)

B. (1) For daytime operation, attach as Exhibit No. an allocation study, utilizing Figure M-3 of the Rules or an accurate full scale reproduction thereof and using pertinent field strength measurement data where available, a full scale exhibit of the entire pertinent area to show the following:

(a) Normally protected, the interference free, and the interfering contours for the proposed operation along all azimuths.

(b) Complete normally protected and interference-free contours of all other proposals and existing stations to which objectionable interference would be caused.

(c) Interfering contours over pertinent arcs of all other proposals and existing stations from which objectionable interference would be received.

(d) Normally protected and interfering contours over pertinent arcs of all other proposals and existing stations which require study to show the absence of objectionable interference.

(e) Plot of the transmitter location of each station or proposal requiring investigation, with identifying call letters, file numbers, and operating or proposed facilities.

(f) Properly labeled longitude and latitude degree lines, shown across entire exhibit.

(2) For daytime operation, when necessary to show more detail, attach as Exhibit No. an additional allocation study, utilizing World or Sectional Aeronautical charts to clearly show interference or absence thereof.

(3) For daytime operation, attach as Exhibit No. a tabulation of the following:

(a) Azimuths along which the groundwave contours were calculated for all stations of proposals shown on allocation study exhibits required by Paragraph 12B above.

(b) Inverse distance field strength used along each azimuth.

(c) Basis for ground conductivity utilized along azimuths specified in (3) (a). If field strength measurements are used, the measurements must be either submitted or be properly identified as to location in Commission files.

C. For nighttime operation, attach as Exhibit No. allocation data to include the following:

(1) Proposed nighttime limitation to other existing or proposed stations with which objectionable interference would result, as well as those other proposals and existing stations which require study to clearly show absence of objectionable interference.

(2) All existing or proposed nighttime limitations which enter into the nighttime R.S.S. limitation of each of the existing or proposed facilities investigated under C (1) above.

(3) All existing and proposed limitations which contribute to the R.S.S. nighttime limitation of the proposed operation, together with those limitations which must be studied before being excluded.

(4) A detailed interference study plotted upon an appropriate scale map if a question exists with respect to nighttime interference to other existing or proposed facilities along bearings other than on a direct line toward the facility considered.

(5) Utilizing an appropriate scale map, clearly show the normally protected and interference-free contours of each of the existing and proposed stations which would receive nighttime interference from the proposed operation.

(6) The detailed basis for each nighttime limitation calculated under C (1) (2) (3) and (4) above, including a copy of each pertinent radiation pattern in the vertical plane and basis therefor.

13. Attach as Exhibit No. tables of the areas and populations within the contours included in Paragraph 12 (A) above, as well as within the normally protected and interference-free contours of each station or proposed operation to which interference would be caused according to the Commission Rules.

(NOTE: See the Standard Broadcast Technical Standards. All towns and cities having populations in excess of those given in Section 3.182(g) are not to be included in the tabulation of populations within the service contours. The 1960 or later Census Minor Civil Division maps are to be used in making population counts, subtracting any towns or cities not receiving adequate service, and where contours cut a minor division assuming a uniform distribution of population within the division, to determine the population included in the contours unless a more accurate count is made.)

14. Attach as Exhibit No. map or maps having reasonable scales clearly showing the following:

(a) Proposed antenna location

(b) General character of the city or metropolitan district, particularly the retail business, wholesale business, manufacturing, residential, and unpopulated areas (by symbols, cross-hatching, colored crayons, or other means)

(c) Heights of buildings or other structures and terrain elevations in the vicinity of the antenna, indicating the location thereof.

(d) Transmitter location and call letters of all radio stations (except amateur) and the location of established commercial and government receiving stations within 2 miles of the proposed transmitter location. Call letters and locations of broadcast stations, including FM and television, within 5 miles must be shown.

(e) Terrain

15. If this application is for modification of construction permit state briefly as Exhibit No. the present status of construction and indicate when it is expected that construction will be completed.

16. Environmental statement, see Part 1, Subpart I of the rules

Would a Commission grant of your application be a major action as defined by Section 1.1305 of the Commission's rules?

YES ☐ If yes, Submit EXHIBIT the required statement in accordance with Section 1.1311 of the rules

NO ☐ If no, explain briefly.

I certify that I represent the applicant in the capacity indicated below and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief.

Date _____

Signature _____ *(Check appropriate box below)*

Address _____ *(Include ZIP Code)*

_____

Telephone No. _____ *(Area Code)*

☐ Technical Director

☐ Registered Professional Engineer

☐ Consulting Engineer

☐ Chief Operator

☐ Other (specify)

FCC Form 340 — FEDERAL COMMUNICATIONS COMMISSION — Section V-B

FM ENGINEERING DATA

Name of applicant: Middlebury College President and Fellows

FOR COMMISSION USE ONLY — File No.

1. Purpose of authorization applied for:

☐ Construct a new station ☒ Make changes in authorized radio station

If this is not for a new station, summarize briefly the nature of the changes proposed.

Increase ERP to 100 W

2. Facilities requested: WRMC-FM

Frequency	Transmitter power output
Ch. 219 91.7 MHz	240 Watts

3. Proposed transmitter location

State	County	City
Vermont	Addison	Middlebury

Street Address (or other identification): Gifford Hall - Hepburn Rd.

Remote control point location

State	City or town

Street Address (or other identification): Same as studio

4. Proposed location of main studio

State	County
Vermont	Addison

City or town	Street Address
Middlebury	Redfield Proctor Hall

Other studios proposed:

5. Transmitter

Make: LPB

Type No.	Rated Power
FM-300SS	300 W

(If the above transmitter has not been accepted for licensing by the F.C.C., attach as Exhibit No. a complete showing of transmitter details. Showing should include schematic diagram and full details of frequency control. If changes are to be made in licensed transmitter include schematic diagram and give full details of change.)

6. Transmission line proposed to supply power to the antenna from the transmitter

Make	Type No.	Description
Andrew	FHJ5	Heliax

Size (nominal transverse dimension) in inches	Length in feet	Rated efficiency in percent for this length
7/8	50	95

7a. Antenna structure

Is the proposed construction in the immediate vicinity or does it serve to modify the construction of any standard broadcast station, FM broadcast station, television broadcast station, or other class of radio station? ☐ Yes ☒ No

If "Yes", attach as Exhibit No. complete engineering data thereon.

Submit as Exhibit No. E a vertical plan sketch for the proposed total structure (including supporting building if any) giving heights above ground in feet for all significant features.

Overall height in feet above ground. (Without obstruction lighting)	Overall height in feet above mean sea level. (Without obstruction lighting)
90	550
Overall height in feet above ground. (With obstruction lighting)	**Overall height in feet above mean sea level. (With obstruction lighting)**
Not Required	

Height of antenna radiation center in feet above mean sea level: 534

Geographical Coordinates of Antenna (To nearest second)

North Latitude: 44° 00' 35" West Longitude: 73° 10' 45"

b. Antenna data

Make	Type No. or description	No. of sections
Phelps Dodge	CP-1000-1	1

Effective free space field intensity at one mile in mv/m for one kilowatt antenna input power	Antenna field gain	Antenna power gain
91 mV/m/kW@ 1 mile	.663	.44

Is horizontal polorization proposed? ☒ Yes ☐ No

If "No", attach as Exhibit No. complete engineering data on the antenna and the effective radiated power proposed.

Is directional antenna proposed? ☐ Yes ☒ No

If "Yes", attach as Exhibit No. complete engineering data thereon.

8. If this is a major environmental action submit as Exhibit No. a sufficient number of aerial photographs taken in clear weather at appropriate altitudes and angles to show the nature of the surrounding terrain in the vicinity of the proposed transmitter site. The photographs must be marked so as to show compass directions. Photographs taken in eight different directions from an elevated position on the ground will be acceptable in lieu of the aerial photographs if the area can be clearly shown. Give date photographs were taken.

9. Proposed Operation

Transmitter power output in kilowatts	Power dissipation within transmission line in kilowatts
0.240	.012
Antenna input power in kilowatts	**Effected radiated power in kilowatts**
0.228	0.100

10. Modulation monitor

Make	Type No.
Belar	FMM-1 & FMS-1

11. (a) Attach as Exhibit a map(s) (topographic where obtainable, such as U. S. Geological Survey quadrangles) within 15 miles of the proposed transmitter location. In addition the following will be indicated:

(1) Proposed transmitter and main studio locations accurately plotted;

(2) Transmitter location and call letters of all known radio stations (except amateur) and the location of established commercial and government receiving stations within 2 miles of the proposed transmitter location;

(3) Character of the area within 2 miles of transmitter location, suitably designated as to residential, business, industrial, and rural nature;

(4) At least eight radials each extending to a distance of ten or more miles from the proposed transmitter location.

(b) Attach as Exhibit No. E profile graphs for the radials in a (4) above. Each graph shall show the elevation of the antenna radiation center. Identify each graph by its bearing from the proposed transmitter location. Direction true north shall be zero azimuth and angles measured clockwise. Show source of topographical data on each. Show scale of miles.

12. From the profile graphs in 11(b), for the eight mile distance between two and ten miles from the proposed transmitter location, and in accordance with the procedure prescribed in Section 73.313 of the Commission's Rules, supply the following tabulation of data: (If proposed location is adjacent to the sea coast or the Great Lakes omit from this tabulation all radials which lie over water substantially the entire distance between two miles from the proposed transmitter location and the predicted 50 microvolt per meter contour.)

Radial bearing (degrees true)	Average elevation of radial (2-10 mi.) in feet above mean sea level	Height in feet of antenna radiation center above average elevation of radial (2-10-mi.)	Predicted distance in miles to the 1 mv/m contour	Predicted distance in miles to the 50 uv/m contour
0	feet	feet	mi.	mi.
SEE EXHIBIT E				

Antenna height above average terrain _____ feet

(Average of above listed heights)

13. Environmental statement. See Part 1, Subpart I of the rules.

Would a Commission grant of your application be a major action as defined by Section 1.1305 of the Commission's Rules?

☐ YES If yes, submit as Exhibit No. the required statement in accordance with Section 1.1311 of the Commission's Rules.

☒ NO If no, explain briefly.

Change antenna and transmitter and effective radiated power - increase only.

I certify that I represent the applicant in the capacity indicated below and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief.

Date 4/25/79

Signature Robert D. Cuban

(Check appropriate box)

☐ Technical Director ☐ Chief Operator

☒ Registered Professional Engineer ☐ Other (specify)

☒ Consulting Engineer

Address 1156 15th Street, N. W.

(Include ZIP Code)

Washington, D. C. 20005

Telephone No. 202-296-2722

(Area Code)

NOT APPLICABLE

FCC Form 340 | FEDERAL COMMUNICATIONS COMMISSION | Section V-C

TELEVISION BROADCAST ENGINEERING DATA

Name of applicant: The President and Fellows of Middlebury College

FOR COMMISSION USE ONLY

File No.

1. Purpose of authorization applied for: (indicate by check mark)

(If application is for a new station or for any of the changes numbered B through D, complete all paragraphs of this form; if change E is of a character which will change coverage or increase the overall height of the antenna structure more than 20 feet, answer all paragraphs, otherwise complete only paragraphs 2 and 7 and the appropriate other paragraphs; for changes F through I, complete only paragraph 2 and the appropriate other paragraphs; for change J, complete only paragraphs 2, 5 and 16(b).

A. ☐ Construct a new station
B. ☐ Change effective radiated power or antenna height above average terrain
C. ☐ Change transmitter location
D. ☐ Change frequency
E. ☐ Change antenna system
F. ☐ Construct or change auxiliary antenna system
G. ☐ Change transmitter
H. ☐ Install auxiliary or alternate main transmitter
I. ☐ Other changes (specify)
J. ☐ Change studio location

2. Facilities requested

Frequency ——— Mc. | Channel No.

Effective Radiated Power (visual)	Effective Radiated Power (aural)	Antenna height above average terrain
In dbk: In kw:	In dbk: In kw:	feet

3. Station location (principal community)

State	City or town

4. Transmitter location

State	County
City or town	Street Address (or other identification)

5. Main studio location

State	County
City or town	Street address

6. Transmitters

Visual

Make	Type No.	Rated power In dbk: In kw:

Aural

Make	Type No.	Rated Power In dbk: In kw:

(If the above transmitter has not been accepted for licensing by the F.C.C., attach as Exhibit No. a complete showing of transmitter details. Showing should include schematic diagram and full details of frequency control. If changes are to be made in licensed transmitter include schematic diagram and give full details of change.)

(a) Describe in Exhibit No. means which will be used for determining and maintaining power output of the transmitters to the values specified in this application.

(b) Multiplexer: Make _____ Type No. _____

Rated input power _____ dbk

Rated loss: Visual _____ db Aural _____ db

7. (a) Antenna structure

Is the proposed construction in the immediate vicinity of any other radio station or will the proposed transmitting antenna be supported by the antenna structure of any other radio station? If "Yes", attach as Exhibit No. complete engineering data showing details and effect upon other station. Yes ☐ No ☐

Submit as Exhibit No. a vertical plan sketch for the proposed total structure (including supporting building if any) giving heights above ground in feet for all significant features.

Overall height in feet above ground. (Without obstruction lighting)	Overall height in feet above mean sea level. (Without obstruction lighting)
Overall height in feet above ground. (With obstruction lighting)	Overall height in feet above mean sea level. (With obstruction lighting)

Height of antenna radiation center in feet above mean sea level. feet

Geographical coordinates of antenna (to nearest second) North latitude ° ' " West longitude ° ' "

How were coordinates determined?

Indicate by check mark the zone in which structure is located. 1 ☐ 2 ☐ 3 ☐

(b) Antenna data

Visual

Make	Type No.

Number of sections	Rated input power in dbk	Power gain in db

Aural (if separate)

Make	Type No.

Number of sections	Rated input power in dbk	Power gain in db

If directional antenna is proposed, give full details including horizontal and vertical plane radiation patterns, as Exhibit No.

Is electrical or mechanical beam tilting proposed? Yes ☐ No ☐
If so, describe fully in Exhibit No. including horizontal and pertinent vertical radiation patterns.

Will antenna be altered to provide null fill-in? Yes ☐ No ☐
If yes, describe fully in Exhibit No.

8. Transmission line proposed to supply power to the antenna from the transmitter

(a) Visual			(b) Aural (if separate)		
Make	Type No.	Rated input power in dbk	Make	Type No.	Rated input power in dbk
Size (nominal inside transverse dimensions) in inches	Length in feet	Power loss in db for this length	Size (nominal inside transverse dimension) in inches	Length in feet	Power loss in db for this length

9. Proposed operation

(a) Visual

Transmitter power output (after vestigial sideband filter, if used)	Multiplexer loss in db:	Input to transmission line in dbk:
In dbk: In kw:		

Transmission line power loss in db:	Antenna input power in dbk:	Antenna power gain in db:	Effective radiated power In dbk: In kw:

(b) Aural

Transmitter power output	Multiplexer loss in db:	Input to transmission line in dbk:
In dbk: In kw:		

Transmission line power loss in db:	Antenna input power in dbk:	Antenna power gain in db:	Effective radiated power In kbk: In kw:

10. Modulation monitors

(a) Visual monitor or monitoring equipment

Make	Type No.

(b) Aural monitor

Make	Type No.

11. Frequency monitors

(a) Visual monitor

Make	Type No.	Accuracy

(b) Aural monitor

Make	Type No.	Accuracy

12. If the above monitors or monitoring equipment have not been approved by the F.C.C., include as Exhibit No. a brief technical description of each.

13. Will the studios, cameras, microphones, and other equipment proposed for transmission of programs be designed for compliance with the Commission's Rules? Yes ☐ No ☐

14. (a) Attach as Exhibit No. a map(s) (topographic where obtainable, such as U.S. Geological Survey quadrangles) for the area within 15 miles of the proposed transmitter location and show drawn thereon the following data:

1. Proposed transmitter location—accurately plotted;
2. Transmitter location and call letters of all known radio stations (except amateur) and the location of known commercial and government receiving stations within 2 miles of the proposed transmitter location;
3. Character of the area within 2 miles of proposed transmitter location, suitably designated as to residential, business, industrial, and rural nature;
4. At least eight radials each extending to a distance of ten or more miles from the proposed transmitter location, one or more of which must extend through the principal city to be served.

(b) Attach as Exhibit No. profile graphs with reasonably large scales for the radials in (a) (4) above. Each graph shall show the elevation of the antenna radiation center. Identify each graph by its bearing from the proposed transmitter location. Direction of true north shall be zero azimuth, with angles measured clockwise. Show source of topographical data on each.

15. From the profile graphs in 14(b), for the eight mile distance between two and ten miles from the proposed transmitter location, and in accordance with the procedure prescribed in the Commission's Rules, supply the following tabulation of data:

Radial bearing (degrees true)	Average elevation of radial (2-10 mi.) in feet above mean sea level	Height in feet of antenna radiation center above average elevation of radial (2-10 mi.)	Effective radiated power in radial direction	Predicted distance in miles to the Grade A contour	Predicted distance in miles to the Grade B contour
0 0	feet	feet	dbk	mi.	mi.
45					
90					
135					
180					
225					
270					
315					
(*)					
Average					

* Radial over principal community if not included above. Do not include in average.

Antenna height above average terrain _____ feet (Must be identical with Paragraph 2)

16. Attach as Exhibit No. map(s) (Sectional Aeronautical charts where obtainable, preferably without aeronautical overlay) of the area proposed to be served and shown drawn thereon:

(a) Proposed transmitter location and the radials along which the profile graphs have been prepared;
(b) The studio location and boundaries of the principal community;
(c) The predicted Grade A and Grade B contours from 12 above;
(d) The required minimum field strength contour;
(e) Scale of miles.

17. Attach as Exhibit No. a sufficient number of aerial photographs taken in clear weather at appropriate altitudes and angles to show the nature of the surrounding terrain in the vicinity of the proposed transmitter site. The photographs must be marked so as to show compass directions. Photographs taken in eight different directions from an elevated position on the ground will be acceptable in lieu of the aerial photographs if the area can be clearly shown.

Give date photographs were taken.

18. Will the minimum required value of field strength predicted in accordance with the method prescribed in the Commission's Rules, be provided over the entire principal community proposed to be served? Yes ☐ No ☐

19. Will the main studio be located within the limits of the principal community proposed to be served? Yes ☐ No ☐

20. (a) Does the proposed transmitter location comply with the minimum separation requirements of the Commission's Rules? Yes ☐ No ☐

(b) If any co-channel separations are proposed that are less than the applicable minimum separation requirement plus 20 miles, or if other channel separations are proposed that are less than the applicable minimum separations plus 10 miles, list such separations below. (Include existing stations, proposed stations and cities which appear in the table of assignments; the location and geographical coordinates of each antenna, proposed antenna or reference point as appropriate; the distance to each from the proposed transmitter location; and the method used in each instance to measure the distance.) If none, so state.

21. If this is an application for modification of construction permit state briefly as Exhibit No. the present status of construction and indicate when it is expected that construction will be completed.

22. Environmental statement, see Part 1, Subpart I of the rules

Would a Commission grant of your application be a major action as defined by Section 1.1305 of the Commission's rules?

YES ☐ If yes, submit EXHIBIT the required statement in accordance with Section 1.1311 of the rules.

NO ☐ If no, explain briefly.

I certify that I represent the applicant in the capacity indicated below and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief.

Date _____

Signature _____ *(check appropriate box below)*

Address _____ *(Include ZIP Code)*

_____

Telephone No. _____ *(Area Code)*

☐ Technical Director ☐ Consulting Engineer ☐ Other *(specify)*

☐ Registered Professional Engineer ☐ Chief Operator

NOT APPLICABLE - See page 4 of Engineering Statement

Broadcast Application | FEDERAL COMMUNICATIONS COMMISSION | Section V-G (Antenna)

ANTENNA AND SITE INFORMATION *(See instructions B, Section I)*

NAME OF APPLICANT: The President and Fellows of Middlebury College

CALL SIGN:

CLASS OF STATION:

STATION LOCATION:

FACILITIES REQUESTED:

PURPOSE OF APPLICATION *(Put "X" in appropriate box)*

- ☐ a. New antenna construction
- ☐ b. Alteration of existing antenna structure
- ☐ c. Change in location

LEGAL COUNSEL:

ADDRESS:

CONSULTING ENGINEER:

ADDRESS:

3. Has the FAA been notified of proposed construction?

☐ YES If yes, give date and office where notice was filed.

☐ NO

1. LOCATION OF ANTENNA

STATE	COUNTY	CITY OR TOWN

Exact antenna location *(street address)*. If outside city limits, give name of nearest town and distance and direction of antenna from the town.

Geographical coordinates (to nearest second).
For directional antenna give coordinates of center of array.
For single vertical radiator give tower location.

North latitude	West longitude
° ' "	° ' "

2. Is the proposed site the same or immediately adjoining the transmitter-antenna site of other stations authorized by the Commission or specified in another application pending before the Commission?

☐ YES ☐ NO If yes, give call sign: _____

4. FEATURES OF SURROUNDING TERRAIN

Submit as Exhibit No. a chart on which is plotted the exact location of the antenna site, and also the relative location and height of any natural formation or existing man-made structures (trees, water tanks, towers, buildings, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft. The chart used shall be a 7.5 or 15 minute series topographic quadrangle (choice depending upon proximity of the antenna site to landing areas) or photo copy. On the chart include 1) a scale of miles, 2) sufficient latitude and longitude lines, clearly labeled, so that the location of sites may be verified, and 3) the name of the map from which the exhibit is reproduced. These charts may be purchased from the U.S. Geological Survey, Washington, D.C. 20242 or, for areas west of the Mississippi River, from the U.S. Geological Survey, Denver, Colorado 80225.

(Exception - Where the proposed antenna site is within the boundary of landing area, submit a self-made, large scale map showing antenna site runways and existing man-made structures).

5. List all landing areas within 10 miles of antenna site. Give distance and direction to the nearest boundary of each landing area from the antenna site.

	Landing Area	Distance	Direction
(a)			
(b)			
(c)			

6. Description of antenna system (If directional, give spacing and orientation of towers).

Type

Description of tower(s)

Self-supporting / Guyed / Tubular (Pole)	#1	#2	#3	#4	#5	#6
Tower (height figures should include obstruction lighting)						
Height of radiating elements						
Overall height above ground						
Overall height above mean sea level						

7. If a combination of Standard, FM, or TV operation is proposed on the same multi-element array (either existing or proposed) submit as Exhibit No. a horizontal plan for the proposed antenna system, giving heights of the elements above ground and showing their orientation and spacing in feet. Clearly indicate if any towers are existing.

8. Submit as Exhibit No. a vertical plan sketch for the proposed total structure (including supporting building if any) giving heights above ground in feet for all significant features. Clearly indicate existing portions, noting lighting, and distinguish between the skeletal or other main supporting structure and the antenna elements.

I certify that I represent the applicant in the capacity indicated below and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief.

_____ *(date)* Signature _____

(check appropriate box below)

☐ Technical Director ☐ Chief Operator ☐ Registered Professional Engineer ☐ Consultant

☆ U.S. GOVERNMENT PRINTING OFFICE: 1979 -627-012/1714

FCC Form 340	FEDERAL COMMUNICATIONS COMMISSION	Section VI
EQUAL EMPLOYMENT OPPORTUNITY	NAME OF APPLICANT: THE PRESIDENT AND FELLOWS OF MIDDLEBURY COLLEGE	
CALL SIGN: WRMC-FM	CITY AND STATE WHICH STATION IS LICENSED TO SERVE: Middlebury, Vermont	

INSTRUCTIONS TO SECTION VI

Applicants seeking authority to construct or make changes in a noncommercial educational AM, FM, or TV broadcast station are required by the Commission's regulations to afford equal employment opportunity to all qualified persons and to refrain from discriminating in employment and related benefits on the basis of race, color, religion, national origin or sex. See Sections 73.125, 73.599, and 73.680 of the Commission's Rules. Pursuant to these requirements, an applicant who either proposes to employ or has more than ten full-time station employees, must establish a positive, continuing program of practices to assure equal employment opportunity for women. A program must also be established by that applicant for minority groups that have traditionally suffered from discrimination in employment (that is, Blacks, Orientals, Spanish-Surnamed Americans, and American Indians) *unless* the minority group is represented in the area in such insignificant numbers that a program would not be meaningful. In such a situation, a statement of explanation should be submitted with the application filed with the Commission. An explanatory statement should also be filed in response to Question No. 1, *infra*, where the applicant proposes to employ or has ten or less full-time station employees.

On July 26, 1976, the Commission issued a *Report and Order* in Docket No. 20550, 60 FCC 2d 226, 41 Fed. Reg. 31210, wherein it adopted a ten-point EEO program which is to serve as a model to be followed by all non-exempt broadcast applicants. Guidelines to assist these applicants in applying the model EEO program to their particular situations are set forth in Attachment A. Also appended hereto as Attachment B is a copy of the model EEO program.

In responding to Question No. 1, an applicant for a construction permit for a new noncommercial educational broadcast station who proposes to employ more than ten full-time employees must, therefore, set forth in an exhibit its proposed EEO policy and practices relative to the first five elements of the model program. An applicant seeking a change in facilities of an existing noncommercial educational broadcast station, which employs more than ten persons on a full-time basis, must set forth in its exhibit a description of the station's EEO program (elements 1 - 5) and a demonstration of the effectiveness of that program (elements 6 - 10). However, a program need not be filed where the required information was submitted to the Commission within the proceding 12 months in another application involving the subject station.

Complaints, alleging unlawful discrimination in the employment practices of the station for which a change in facilities is requested, should be reported in response to Question No. 2. The applicant should set forth in an exhibit a description of any discrimination complaint filed during the preceding license period before any judicial or administrative body having competent jurisdiction under federal, state, or local law. That description should include an identification of the persons involved, the specification of the court or agency with which it was filed, as well as the date of filing and file number assigned to that complaint (if any), and the disposition or current status of the matter.

1. Submit as Exhibit No. a description of the program the applicant proposes to follow during the coming license term and, where applicable, the program implemented during the preceding license term to assure equal employment opportunity for minorities and women.

2. Submit as Exhibit No. a brief description of any complaint which has been filed before any body having competent jurisdiction under federal, state, territorial or local law, alleging unlawful discrimination in employment practices of the station, including the persons involved, the date of filing, the court or agency, the file number (if any), and the disposition or current status matter.

WRMC-FM does not, nor does it intend, to employ more than 10 full time station employees. Membership on the station staff is open to anyone in the College undergraduate community; the College is committed to a policy of equal opportunity.

EXHIBIT 1

MIDDLEBURY COLLEGE
MIDDLEBURY VERMONT

EXCERPT
FROM MINUTES OF MEETING OF THE BOARD OF TRUSTEES
JANUARY 13, 1979

"It was voted to authorize the President to apply, on terms satisfactory to him, for an increase in the station's power from 10 to 100 watts (in the name of The President and Fellows of Middlebury College, present licensee of FM radio station WRMC)."

With a quorum of members present who had the authority to act, the above minute was favorably voted on by the members required. Furthermore, the above is an exact and true copy of that part of the Minutes of the meeting of the Board of Trustees of The President and Fellows of Middlebury College held in the Town of Middlebury, County of Addison, State of Vermont on January 13, 1979. Finally, it is satisfactory to the President that the Treasurer be authorized to execute and sign the application.

THE PRESIDENT AND FELLOWS OF MIDDLEBURY COLLEGE

By Roger H. Martin
Roger H. Martin, Assistant Secretary

Dated at Middlebury in the County
of Addison in the State of Vermont
this 18th day of December 1979.

See June Bingham for balance sheet

EXHIBIT II

WRMC-FM represents one of many student-run activities financed by appropriations from the Student Government. The money allocated comes from a Student Activities Fund generated by a Student Activities Fee assessed by the Applicant on all undergraduate students.

The Student Activities Accounts are carried in the books of the Applicant as Agency Accounts and separate balance sheets are not prepared for them, nor are separate bank accounts maintained for these accounts.

The most recent balance sheet of the Applicant is attached. The $12,820 indicated in 1.c. above as existing capital is included in the "Accrued Expenses and Payroll Withholdings" of $1,382,000 in that balance sheet at June 30, 1979. There have been no material changes in the financial condition or resources of the Applicant as shown by that Balance Sheet since that date.

EXHIBIT III

WRMC-FM BUDGET SUMMARY

	1979-80
Depreciation	$ 4,483.73
Telephone	2,140.00
Office Supplies	200.00
Postage	100.00
Memberships	170.00
News Service-Associated Press	5,800.00
Miscellaneous News Services	270.00
Consulting Engineer	360.00
Tapes and Tape Cartridges	500.00
Engineering Supplies	450.00
Record Purchases	1,400.00
Pre-recorded programming	700.00
Newspaper Advertising	325.00
Sports Broadcasting	2,500.00
Total	$ 19,398.73

IMPORTANT!

READ THIS!!

TO: Peter J. Gardner and
Steven C. Rockefeller
Co-Chairmen, Community Council

cc: Donald M. Kreis, President
Student Board of Directors of WRMC

January 28, 1980

FROM: Olin Robison
President

SUBJECT: WRMC

Thank you for your memorandum of November 5, 1979 in response to my request that Community Council review the implications, for the College and the community, of increasing WRMC-FM from 10 watts to 100 watts. I understand that the Community Council held lengthy discussions on this matter and I have given your recommendations careful thought.

The recommendation that WRMC present more interview shows and broadcast more special events such as campus lectures is one I support. The recommendation that WRMC seek ways to continue live coverage of Middlebury College sports events is also a good one in my view. Especially since the Summer Language Schools have expressed an interest in having WRMC broadcast programs directed at foreign language students, I am in agreement that WRMC should explore with the College ways of remaining on the air during the summer months. This is a matter that requires further careful consideration by all concerned.

There is one important conclusion of the Community Council deliberations on WRMC with which I do not agree. The Council recommends that "the existing control structure whereby the President and Fellows of Middlebury College hold the license of WRMC and the Board of Directors of WRMC is responsible to the Community Council is satisfactory." My concern is two fold.

First, WRMC as a 100 watt station will reach a community far wider than the immediate College community and under FCC regulations it will have obligations to meet the needs of this wider community, and the President and Fellows of Middlebury College as the license holders of WRMC are going to need some means beyond the Community Council of insuring that their responsibilities are being fulfilled. They must be sure that maximum advantage is taken of any and all opportunities to improve the quality of the programming and that everything possible is being done to serve the wider community which will be reached by going to 100 watts. The Community Council can certainly continue to be most helpful in this matter, but it is not reasonable to expect it to have the expertise or the regular involvement that is called for. Second, the Student Board of Directors of WRMC will be confronting many new opportunities and challenges as well as expanded new responsibilities and they could benefit a great deal from the outside counsel and assistance of a concerned and knowledgeable group of community members. These two considerations lead me to propose the following:

1. That the President appoint an Advisory Committee to the WRMC Student Board of Directors, consisting of the Director of Student Activities (Mrs. Flickinger), Director of Public Affairs (Mr. Nief), the Dean for Program Development (Mr. Perry), a representative of the Summer Language Schools, one faculty member, two students and one or two representatives of the local community. It shall be the responsibility of this Advisory Committee to advise the Student Board of Directors with respect to community service, summer operation, compliance with FCC regulations, additional programming opportunities, etc., and to submit to the President periodic reports and recommendations pertaining to WRMC matters.

2. That in the constitution of the Middlebury College Radio Service (MCRS) the second sentence in Article II, Section B, and all of Article XII in its present form be deleted.

3. That there be added to the constitution of MCRS a new Article XII which will specify the function of the Advisory Committee and outline the procedure to be followed in the event of a disagreement between the Student Board of Directors and the Advisory Committee. The new Article should state quite clearly that in the case of such a disagreement, the final decision on what WRMC should do in the conduct of its business rests with the President and Fellows of the College, who hold the license, although the President may elect to and will normally seek, the advice of the Community Council.

4. That the Community Council should continue to regard it as appropriate to review from time to time the activities of WRMC-FM and to make recommendations to the Student Board of Directors and the Advisory Committee.

Before steps are taken to implement this proposal I would like to have the thinking of the Community Council. I have also asked Deans Rockefeller and Perry to consult with the Student Board of Directors of WRMC.

Thank you.

MEMORANDUM TO: Members of the Community Council

FROM: Donald M. Kreis
President and General Manager
WRMC-FM

SUBJECT: Response to President Robison's Memorandum

DATE: January 29, 1980

After meeting with Dean Rockefeller, the Board of Directors of WRMC has reached a consensus concerning the President's proposal and has authorized me to communicate it to you.

In general, WRMC favors the concept of a Community Advisory Board. Like many of our colleagues in non-commercial radio, we believe that such a board, representing the station's listening public, would be a welcome vehicle for community involvement. It would indeed be a major step toward addressing our mandate to serve "in the public interest."

We are also painfully aware of our responsibilities--both at 10 and 100 watts--to serve our community. Our attempts over the past two years to educate both ourselves and the College as to the extensive nature of these responsibilities are, in fact, what has lead to these present deliberations. We welcome them.

However, we are greatly concerned that the suggestion outlined in the President's memorandum fails to establish a link between the station and its listenership. Rather, the student directors of the station tend to view this as the establishment of an avenue of prior restraint from the College as corporate licensee. Because it alters the assumption in Article XII of the Middlebury College Radio Service (MCRS) Constitution, i.e. that "It shall be the responsibility of the Community Council Sub-group to mediate any dispute between the management of the MCRS and the representatives of the College," it de facto abolishes the statement in Article II that "Responsibility for the program content of WRMC-FM shall rest solely with the MCRS."

Thus, rather than objecting to the concept, we disagree on the issue of jurisdiction. We are particularly concerned with the statement that "the final decision on what WRMC should do in the conduct of its business rests with the President and Fellows of the College, who hold the license, although the President may elect to and will normally seek, the advice of the Community Council." We stand committed to the concept of a vehicle for mediation and a guarantee of student freedoms. The potential for abuse is otherwise just too great.

Legally, of course, the President is already empowered to direct the operation of the station. However, to do so would be to violate the agreement between the students and the College as set down in the MCRS Constitution. That document reflects the fact that, since its founding in 1949, WRMC has always been completely funded, operated, and managed by students. The College became the licensee in 1968 only because MCRS, as an unincorporated body, is not qualified to hold the license itself.

Representatives of the College have repeatedly reminded us that, although the present directors of WRMC are regarded as very responsible, our tenure is finite and our successors could be less cooperative. Presidents and Deans, too, are not immortal. And, while we are confident that the present administration is mindful of student rights and freedoms, we cannot assume that such conditions will exist in perpetuity. A President with less integrity could use the proposed Advisory Committee, a majority of which would be his subordinates, as a means to exert control over the station. We are reluctant to provide such an opportunity.

Because of our active participation in their formation, we reiterate our support of the Community Council's earlier recomendations. As always, we welcome the active participation of the College and the community in our station and regard the present channels has having proven themselves sufficient. Likewise, we welcome the formation of an advisory board which is truly representative of our listenership. It would be a compromise of broadcast freedoms, however, to allow any such group to do more than just advise.

WRMC takes great pride in its role as a representative of Middlebury College to the outside world. And we strongly believe that the best way the College can further its image as an institution committed to personal and academic freedom is to allow its media to thrive under a commitment to freedom of expression.

IF YOU ARE CONCERNED ABOUT THIS (AND YOU SHOULD BE) YOU WILL WANT TO BE AT THE COMMUNITY COUNCIL MEETING ON WEDNESDAY, 1/30 AT 3:00 PM

OLD CHAPEL 1ST FLOOR!

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	MM Docket No. 90-509
	)	
Amendment of Section 73.202(b),	)	RM-7360
Table of Allotments,	)	
FM Broadcast Stations,	)	
(Port Henry, New York and	)	
Middlebury, Vermont)	)	

To: Chief, Policy and Rules Division
Mass Media Bureau

COMMENTS OF ST. LAWRENCE UNIVERSITY

ST. LAWRENCE UNIVERSITY ("St. Lawrence"), by counsel, hereby comments on the Notice of Proposed Rule Making and Order to Show Cause, DA 90-1484, released November 6, 1990 ("Notice") in the above-captioned proceeding.

St. Lawrence is an interested party and has standing to participate in this proceeding. St. Lawrence is the applicant for a permit to construct a new FM station on Channel 210C3 at North Creek, New York (File No. BPED-900117MA). St. Lawrence's application was afforded cut-off protection by the Commission as of May 4, 1990. Non-Commercial Educational FM Broadcast Applications Accepted for Filing and Notice of Cut-Off Date, Report No. NA A-191, Released April 3, 1990. The Commission recognized that if the proposal set forth in its Notice were adopted, it might have a negative effect upon St. Lawrence's rights at North Creek. Notice, para. 2. Indeed, the Commission directed the Secretary of the Commission to serve St. Lawrence with a copy of the Notice. Notice, para. 2.

The Commission adopted the instant Notice at the request of Pro-Radio, Inc., licensee of WMNM(FM), operating on Channel

221A at Port Henry, New York. The purpose of the request was to obtain a change in the table of allotments which would allow for the upgrading of WMNM from Class A to Class C3 status. Accordingly, the Commission has proposed to amend the FM Table of Allotments as follows:

City	Present	Proposed
Port Henry, New York	221A	221C3

To accomplish this result, it is proposed that Channel 210A be substituted for Channel 219A at Middlebury, Vermont. Currently noncommercial educational station WRMC-FM operates on Channel 219A at Middlebury. WRMC-FM is licensed to The President and Fellows of Middlebury College.

The substitution of Channel 210A for 219A at Middlebury, Vermont **cannot** be accomplished without prohibited inteference occurring between the signals of St. Lawrence's proposed facility on Channel 210C3 at North Creek and WRMC-FM. This is confirmed by an engineering exhibit, attached hereto as Attachment 1. As this exhibit demonstrates, if WRMC-FM were moved to Channel 210A at Middlebury, substantial prohibited overlap would occur. St. Lawrence's proposed interference contour would entirely engulf WRMC-FM's service contour. This overlap is prohibited by Section 73.509 of the Commission's rules. Therefore, because prohibited interference will occur, in violation of the Commission's clearly stated rules, public policy is not advanced by the allocation of Channel 210A to Middlebury, Vermont.

As noted above, St. Lawrence's application received cut-off protection many months ago. The Commission's long-standing

rule has been to honor duly obtained cut-off protection. This has been true even in the face of well-expressed demonstrations of interest or need for other uses of the channel. Under circumstances somewhat similar to those here, the Commission recently applied and upheld this principle in Montrose and Scranton, Pennsylvania, 5 F.C.C.Rcd. 6305 (1990). To adopt the proposal in the instant Notice and violate St. Lawrence's cut-off protection would contravene this well-established policy.

Furthermore, St. Lawrence's North Creek application proposes the construction and operation of a new noncommercial public radio station in an area presently underserved by public radio and whose residents have demanded the initiation of such new service. St. Lawrence filed its application and made its plans to operate the new station in response to this public demand. St. Lawrence's effort to meet this expressed need would be unnecessarily thwarted and the need would go unmet by adopting the proposal as announced in the instant Notice.

However, there is an alternative. Channel 221C3 may be allocated to Port Henry, New York if Channel 216A (rather than Channel 210A) is substituted for Channel 219A at Middlebury, Vermont. St. Lawrence understands that Pro-Radio will be submitting comments in this proceeding which will demonstrate the feasibility of this arrangement. Substitution of Channel 216A for Channel 219A is a result in keeping with the public interest since WRMC-FM would be able to operate without objectionable interference. This is the preferred result, and one which St. Lawrence encourages.

WHEREFORE, St. Lawrence University opposes the proposal to modify of the license of WRMC-FM to specify operation on Channel 210A at Middlebury, Vermont. St. Lawrence takes no position on the basic question of whether Channel 221C3 should be allotted to Port Henry, New York as long as such an allotment would have no affect upon its North Creek application.

Respectfully submitted,

ST. LAWRENCE UNIVERSITY,

By: Donald E. Martin

Donald E. Martin
Spencer W. Weisbroth

Donald E. Martin, P.C.
2000 L Street, N.W.
Suite 200
Washington, D.C. 20036
(202) 887-5070

Its Attorneys

December 28, 1990

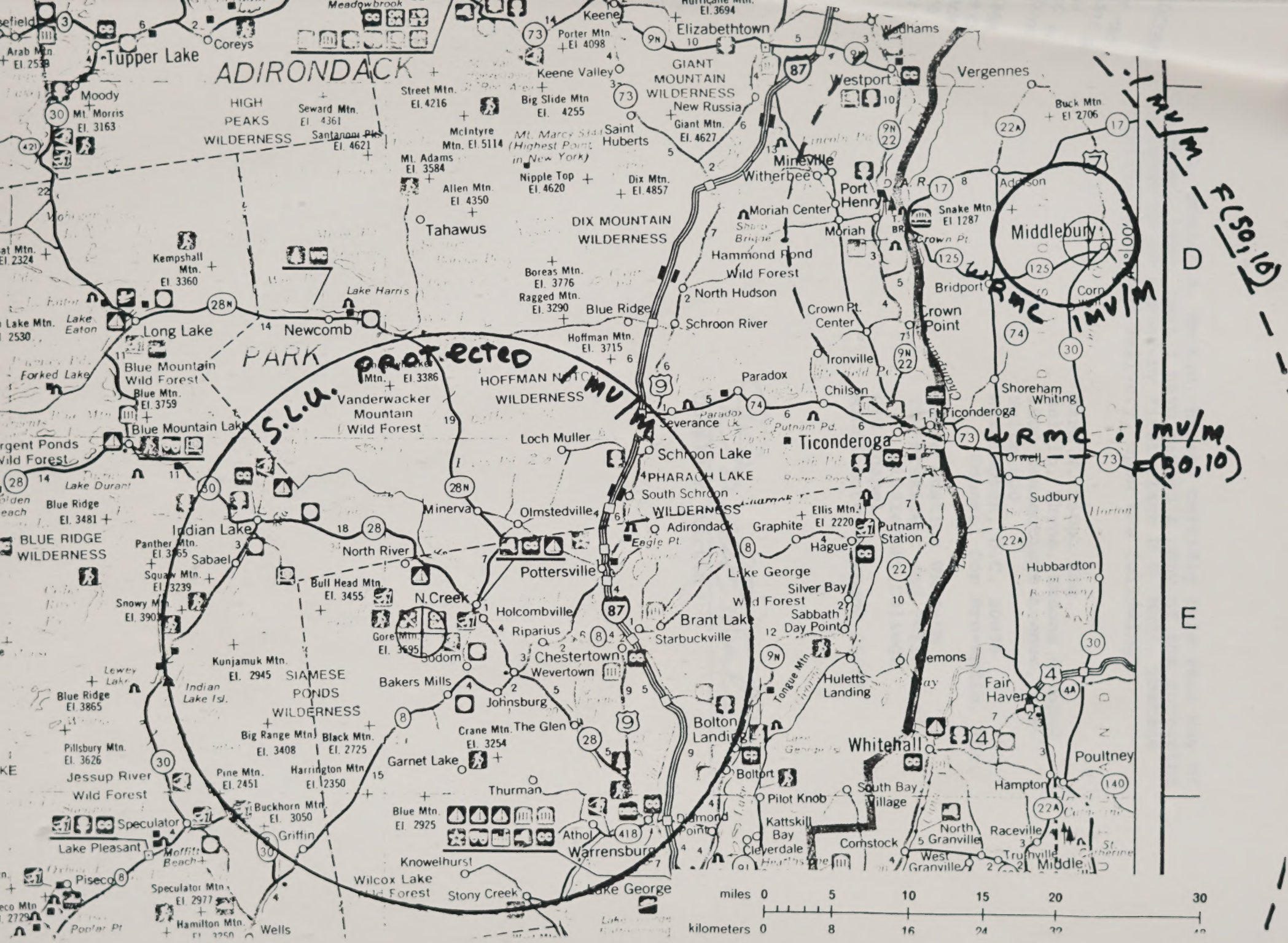
GINEERING EXHIBIT

: can be shown that the relocation of WRMC-FM to channel 210, while not caus-
ng interference to the new non-commercial FM station in North Creek, NY (The
t. Lawrence University, ch 210C3, BPED-900117MA), would be in violation of
he Commission's rules, section 73.509(a), prohibiting overlap of signal
contours in the reserved band.

WRMC-FM is located 79.3 km from the transmitter site of the proposed North Creek, NY facility at a bearing of 61.4 degrees from North Creek, to Middlebury, VT (WRMC-FM). At the appropriate bearing, the North Creek facility will produce an interfering contour (0.1 mV/M F(50,10)) of 97 km. It is clear that WRMC-FM's protected 1.0 mV/m contour will be 100% overlapped.

Below are tabulated the significant protected and interfering contours of the two affected stations:

Bearing	Height of radiation center above average elevation of radial	Predicted Distance to 1 mV/M contour F(50.50)	Predicted Distance to 0.1 mV/M interference contour f(50,10)
NORTH CREEK,NY 0.200 kW, 608 m HAAT, 43-40-22N, 74-02-52W, ch 210C3			
0	659.9 m.	33.3 km	93 km
45	723.5 m.	34.9 km	97 km
90	749.7 m.	35.5 km	98 km
135	709.2 m.	34.5 km	95 km
180	510.4 m.	29.1 km	84 km
225	503.4 m.	28.9 km	84 km
270	501.3 m.	28.9 km	84 km
315	508.3 m.	29.1 km	84 km
WRMC-FM, MIDDLEBURY,VT 0.100 kW, -10 m HAAT, 44-00-35N, 73-10-45W, ch 210A			
0	63.1 m.	8.3 km	28 km
45	-97.8 m.	5.6 km	18 km
90	-213.6 m.	5.6 km	18 km
135	-113.0 m	5.6 km	18 km
180	45.1 m.	7.0 km	23 km
225	64.9 m.	8.2 km	28 km
270	89.1 m.	9.8 km	33 km
315	80.1 m.	9.3 km	31 km



S.U. protected 1MV/M

WRMC 1MV/M F(50,10)

WRMC .1MV/M (30,10)

I, Donald E. Martin, hereby certifiy this 28th day of December, 1990, that I have caused a copy of the foregoing document to be served by first class U.S. Mail, postage prepaid, or by had delivery, upon the following:

Mark N. Lipp, Esq.
Mullin, Rhyne, Emmons & Topel
1000 Connecticut Avenue, N.W.
Suite 500
Washington, D.C. 20036
Counsel for Pro-Radio, Inc.

Radio Station WRMC-FM
The President and Fellows of
Middlebury College
Old Chapel
Middlebury, Vermont 05753

Donald E. Martin

EDUCATIONAL FM ASSOCIATES • 19 Bolas Road • Duxbury, Massachusetts 02332
Telephone: (617) 585-9200

NOV 16 1990

November 15, 1990

pc: DWG
Cathy Walsh

Mr. James D. Ross, Business Manager
Middlebury College
Middlebury, Vermont 05753

Dear Jim:

Enclosed are five copies of the completed application to increase the power and change the antenna site for WRMC. Please have an officer of the College sign and date the last page of all five copies. Be sure to indicate the position of the person signing the application.

Send three of the signed copies of the application to:

Ms. Donna Searcy, Secretary
The Federal Communications Commission
1919 M. Street N.W.
Washington, DC 20554

I recommend you send the material via certified mail or private carrier so you have proof of receipt. If you use a private carrier, the Zip Code is 20036.

Keep one copy of the application in your office and the other at the station. I've assumed you'd want to keep the public file in your office so you'll be able to monitor who looks at it. But you can keep it at the station or, for that matter, anywhere in town if you'd prefer. Just be sure the enclosed Public Notice reflects the real location of the file.

You'll note that this application doesn't change the frequency of WRMC or do anything else to accomodate Mark Brady. His original suggestion that we change to 89.9 MHz has been foreclosed by a now protected application by St. Lawrence University on the same channel at North Creek, NY. There may, however, be other channels available to WRMC at the Chipman Hill site but it should now be up to Mark Brady to identify them and make you a reasonable offer to use one. Certainly if the use of a channel other than 91.7 MHz causes you to operate with less than the power now proposed you should expect to be made financially whole for the lost coverage if you agree to a deal.

Of course, we still have to deal with the conflict with the Fort Ann and Queensbury, NY applicants. With your permission I'll plan to obtain copies of their applications (or perhaps John Bowker can do it) and we'll see how they look. Then perhaps we can all formulate a strategy to make them both go away.

In the interim, we have staked out the ground, protected our right to increase power, and begun the process of significantly improving the WRMC signal. We have also cleared the way for consumating the agreement between Middlebury and Mark Brady which would let both WRMC and WNNM increase power to six kilowatts. I would have no problem with you signing that agreement now since WRMC would also benefit by an increase from three to six kilowatts.

Regarding the tower. It might make sense for Middlebury to fund the tower load study suggested in Betty Wheeler's November 5th letter to you. I would suggest, however, that you get a written firm quote for the work first. My guess is that you'll need to replace the tower anyway so it doesn't make too much sense to pay a lot for the study when the meney might be better applied to simply putting up a new tower.

It was nice to see you last week. I hope we have the chance to get together again soon, perhaps for lunch. The campus is still as beautiful as ever.

Kindest personal regards,

Edward F. Perry, Jr.

Enclosures: 5 complete applications
1 invoice
1 public notice

cc & 1 application: John Bowker

EDUCATIONAL FM ASSOCIATES • 19 Bolas Road • Duxbury, Massachusetts 02332
Telephone: (617) 585-9200

NOV 16 1990

INVOICE

To: Middlebury College

Date: November 15, 1990

For: Preparation of power increase and site change application for radio station WRMC.

Charges: Preparation of all required technical material and exhibits to support application. Meeting in Middlebury with Jim Ross, telephone conferences relative to project.

Flat Fee per Quotation:	$2,200.00
Auto Mileage. Duxbury to Middlebury VT and return. 432 miles @ 25 cents/mile.	$108.00
Tolls.	$1.50
Fedex for Shipping Report	$15.00
TOTAL DUE AND PAYABLE	$2,324.50

PUBLIC NOTICE

DRAFT

On November ____, 1990, Middlebury College tendered an application to the Federal Communications Commission proposing to relocate the transmitter and antenna site of Radio Station WRMC, FM Channel 219A, 91.7 MHz, at Middlebury, Vermont. WRMC currently operates with 100 watts of power from an antenna on the Middlebury College Campus. The new antenna site will be on Chipman Hill in Middlebury, Vermont at the existing WCVM antenna tower. That tower extends 140 feet above ground. WRMC proposes to operate on FM Channel 219A with an effective radiated power of 3.0 kilowatts from an antenna located 76 meters above average terrain. The WRMC studios will remain on the Middlebury College Campus.

The officers and members of the governing board of Middlebury College are: (List officers and trustees here. Names only. Addresses are not required.) A copy of the application is on file for public inspection during normal business hours at the office of James Ross, Middlebury College Business Manager, Power Plant Building, Middlebury College, Middlebury, Vermont.

****

Run this notice four or five times daily on WRMC for three weeks after you file the application. Keep the logs showing the times of broadcast but you needn't submit this information to the FCC unless they ask for it.

Federal Communications Commission
Washington, D. C. 20554

WRMC copy

FCC 340

Approved by OMB
3060-0034
Expires 4/30/92
See Page 23 for information regarding public burden estimate

APPLICATION FOR CONSTRUCTION PERMIT FOR NONCOMMERCIAL EDUCATIONAL BROADCAST STATION

(Carefully read instructions before filing form) Return only form to FCC

For Commission Use Only
File No.

Section I - GENERAL INFORMATION

1. Name of Applicant		
MIDDLEBURY COLLEGE		
Street Address or P.O. Box MIDDLEBURY COLLEGE		
City MIDDLEBURY	State VT	ZIP Code 05753
Telephone No. *(Include Area Code)* (802) 388-3711		

Send notices and communications to the following person at the address below:		
Name MR. JAMES D. ROSS BUSINESS MANAGER		
Street Address or P.O. Box MIDDLEBURY COLLEGE		
City MIDDLEBURY	State VT	ZIP Code 05753
Telephone No. *(Include Area Code)* (802) 388-3711 EXT 5480		

2. This application is for: ☐ AM ☒ FM ☐ TV

(a) Channel No. or Frequency	(b) Principal Community	City	State
91.7 MHZ, CHANNEL 219A		MIDDLEBURY	VT

(c) Check one of the following boxes:

☐ Application for **NEW** station

☒ **MAJOR** change in licensed facilities; call sign: ..... WRMC

☐ **MINOR** change in licensed facilities; call sign: .....

☐ **MAJOR** modification of construction permit; call sign: .....

File No. of construction permit: .....

☐ **MINOR** modification of construction permit; call sign: .....

File No. of construction permit: .....

☐ **AMENDMENT** to pending application; application file number: .....

NOTE: It is not necessary to use this form to amend a previously filed application. Should you do so, however, please submit only Section I and those other portions of the form that contain the amended information.

3. Is this application mutually exclusive with a renewal application? **BUT IT IS MUTUALLY EXCLUSIVE** ☐ Yes ☒ No
WITH CO-CHANNEL APPLICATIONS IN QUEENSBURY & FORT ANN, NEW YORK.

	Call letters	Community of License	
If Yes, state:		City	State

Middlebury College
FCC Form 340
November, 1990

STATEMENT IN LIEU OF FILING SECTIONS II, III, & IV OF FCC FORM 340 AND RELATED EXHIBITS

All legal information concerning Middlebury College and Radio Station WRMC already on file with the Commission remains correct and is hereby incorporated by reference as part of this application. Section III financial information is not required for applicants proposing facilities changes. The applicant proposes no significant changes in format or programming and all Section IV information on file with the Commission is incorporated by reference.

tion V-B - FM BROADCAST ENGINEERING DATA

FOR COMMISSION USE ONLY
File No. _____
ASB Referral Date _____
Referred by _____

of Applicant

MIDDLEBURY COLLEGE

letters *(if issued)*	Is this application being filed in response to a window? ☐ Yes ☒ No
WRMC	If Yes, specify closing date: **N/A**

Purpose of Application: *(check appropriate box(es))*

- ☐ Construct a new (main) facility
- ☐ Modify existing construction permit for main facility
- ☒ Modify licensed main facility
- ☐ Construct a new auxiliary facility
- ☐ Modify existing construction permit for auxiliary facility
- ☐ Modify licensed auxiliary facility

If purpose is to modify, indicate below the nature of change(s) and specify the file number(s) of the authorizations affected.

- ☒ Antenna supporting-structure height
- ☒ Antenna height above average terrain
- ☒ Antenna location
- ☐ Main Studio location
- ☒ Effective radiated power
- ☐ Frequency
- ☐ Class
- ☐ Other *(Summarize briefly)*

File Number(s) _____

1. Allocation:

Channel No.	Principal community to be served: City	County	State
	MIDDLEBURY	**ADDISON**	**VT**

Class *(check only one box below)*

☒ A ☐ B1 ☐ B ☐ C3
☐ C2 ☐ C1 ☐ C ☐ D

2. Exact location of antenna.
   (a) Specify address, city, county and state. If no address, specify distance and bearing relative to the nearest town or landmark.
   AT WCVM ANTENNA TOWER ON CHIPMAN HILL 480 METERS NORTH OF THE MIDDLEBURY TOWN RESERVOIR, MIDDLEBURY TOWNSHIP, ADDISON COUNTY, VERMONT.
   (b) Geographical coordinates (to nearest second). If mounted on element of an AM array, specify coordinates of center of array. Otherwise, specify tower location. Specify South Latitude or East Longitude where applicable; otherwise, North Latitude or West Longitude will be presumed.

Latitude	°	'	"	Longitude	°	'	"
	44	**01**	**34**		**73**	**09**	**44**

3. Is the supporting structure the same as that of another station(s) or proposed in another pending application(s)? ☒ Yes ☐ No

   If Yes, give call letter(s) or file number(s) or both. **WCVM, CHANNEL 265A, MIDDLEBURY, VT.**

   If proposal involves a change in height of an existing structure, specify existing height above ground level including antenna, all other appurtenances, and lighting, if any.

   N/A

the application propose to correct previous site coordinates? ☐ Yes ☒ No

es, list old coordinates.

ude ° ' "	Longitude ° ' "

las the FAA been notified of the proposed construction? ☐ Yes ☒ No

If Yes, give date and office where notice was filed and attach as an Exhibit a copy of FAA determination, if available. **NO CHANGE IN TOWER HEIGHT IS PROPOSED.** Exhibit No. **N/A**

Date **N/A** Office where filed **N/A**

6. List all landing areas within 8 km of antenna site. Specify distance and bearing from structure to nearest point of the nearest runway.

	Landing Area	Distance (km)	Bearing (degrees True)
(a)	**MIDDLEBURY STATE AIRPORT**	**7.2 KILOMETERS**	**135° T**
(b)			

7. (a) Elevation: *(to the nearest meter)*

(1) of site above mean sea level; **244** meters

(2) of the top of supporting structure above ground (including antenna, all other appurtenances, and lighting, if any); and **43** meters

(3) of the top of supporting structure above mean sea level [(aX1) + (aX2)] **287** meters

(b) Height of radiation center: *(to the nearest meter)* H = Horizontal; V = Vertical

(1) above ground **24** meters (H)

24 meters (V)

(2) above mean sea level [(aX1) + (bX1)] **268** meters (H)

268 meters (V)

(3) above average terrain **76** meters (H)

76 meters (V)

8. Attach as an Exhibit sketch(es) of the supporting structure, labelling all elevations required in Question 7 above, except item 7(bX3). If mounted on an AM directional-array element, specify heights and orientations of all array towers, as well as location of FM radiator. Exhibit No. **FIGURE 1**

9. Effective Radiated Power:

(a) ERP in the horizontal plane **3.0** kw (H*) **3.0** kw (V*)

(b) Is beam tilt proposed? ☐ Yes ☒ No

If Yes, specify maximum ERP in the plane of the tilted beam, and attach as an Exhibit a vertical elevational plot of radiated field. Exhibit No. **N/A**

N/A kw (H*) **N/A** kw (V*)

*Polarization

directional antenna proposed? ☐ Yes ☒ No

(es, attach as an Exhibit a statement with all data specified in 47 C.F.R. Section 73.316, including)t(s) and tabulations of horizontally and vertically polarized radiated components in terms of relative eld. Exhibit No. N/A

Will the main studio be located within the 70 dBu or 3.16 mV/m contour? ☒ Yes ☐ No

If No, attach as an Exhibit justification pursuant to 47 C.F.R. Section 73.1125. Exhibit No. N/A

12. Are there: (a) within 60 meters of the proposed antenna, any proposed or authorized FM or TV transmitters, or any nonbroadcast *(except citizens band or amateur)* radio stations; or (b) within the blanketing contour, any established commercial or government receiving stations, cable head-end facilities, or populated areas; or (c) within ten (10) kilometers of the proposed antenna, any proposed or authorized FM or TV transmitters which may produce receiver-induced intermodulation interference? ☒ Yes ☐ No

If Yes, attach as an Exhibit a description of any expected, undesired effects of operations and remedial steps to be pursued if necessary, and a statement accepting full responsibility for the elimination of any objectionable interference (including that caused by receiver-induced or other types of modulation) to facilities in existence or authorized or to radio receivers in use prior to grant of this application. *(See 47 C.F.R. Sections 73.315(b), 73.316(d) and 73.318.)* Exhibit No. ENG.

13. Attach as an Exhibit a 7.5 minute series U.S. Geological Survey topographic quadrangle map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply with the requirements set forth in Instruction D for Section V. Further, the map must clearly and legibly display the original printed contour lines and data as well as latitude and longitude markings, and must bear a scale of distance in kilometers. **SAME SITE AS WCVM. SITE MAP ALREADY ON FILE.** Exhibit No. ON FILE

14. Attach as an Exhibit *(name the source)* a map which shows clearly, legibly, and accurately, and with the original printed latitude and longitude markings and a scale of distance in kilometers: **COMPOSITE OF NEW YORK AND MONTREAL SECTIONAL AERONAUTICAL CHARTS.** Exhibit No. FIGURE 2

(a) the proposed transmitter location, and the radials along with profile graphs have been prepared;

(b) the 1 mV/m predicted contour and, for noncommercial educational applicants applying on a commercial channel, the 3.16 mV/m contour; and

(c) the legal boundaries of the principal community to be served.

15. Specify area in square kilometers (1 sq. mi. = 2.59 sq. km.) and population (latest census) within the predicted 1 mV/m contour.

Area 2,061.2 sq. km. Population 39,557 PERSONS.

16. Attach as an Exhibit a map *(Sectional Aeronautical charts where obtainable)* showing the present and proposed 1 mV/m (60 dbu) contours. Exhibit No. FIGURE 2

Enter the following from Exhibit above:

Gain Area 1851 sq. XX KM.

Loss Area ---- sq. XX KM.

Percent change (gain area plus loss area as percentage of present area) 880 %.

If 50% or more this constitutes a major change. Indicate in question 2(c), Section I, accordingly.

an application involving an auxiliary facility only, attach as an Exhibit a map *(Sectional Aeronautical t or equivalent)* that shows clearly, legibly, and accurately, and with latitude and longitude markings a scale of distance in kilometers:

Exhibit No. N/A

) the proposed auxiliary 1 mV/m contour; and

.b) the 1 mV/m contour of the licensed main facility for which the applied-for facility will be auxiliary. Also specify the file number of the license. See 47 C.F.R. Section 73.1675. (File No.: N/A)

3. Terrain and coverage data *(to be calculated in accordance with 47 C.F.R. Section 73.313).*

Source of terrain data: *(check only one box below)*

[X] Linearly interpolated 30-second database [ ] 7.5 minute topographic map

(Source: DATAWORLD TERP COMPUTER PROGRAM)

[ ] Other *(briefly summarize)*

Radial bearing (degrees True)	Height of radiation center above average elevation of radial from 3 to 16 km (meters)	Predicted Distances to the 1 mV/m contour (kilometers)
0	156.9	29.5
45	-20.0	13.3
90	-170.8	13.3
135	-66.1	13.3
180	151.2	29.0
225	170.7	30.7
270	190.7	32.4
315	193.1	32.6

Allocation Studies

(See Subpart C of 47 C.F.R. Part 73)

19. Is the proposed antenna location within 320 kilometers (199 miles) of the common border between the United States and Mexico? [ ] Yes [X] No

If Yes, attach as an Exhibit a showing of compliance with all provisions of the Agreement between the United States of America and the United Mexican States concerning Frequency Modulation Broadcasting in the 88 to 108 MHz band.

Exhibit No. N/A

proposed antenna location within 320 kilometers of the common border between the United and Canada? [X] Yes [ ] No

s, attach as an Exhibit a showing of compliance with all provisions of the Working Agreement for ation of FM Broadcasting Stations on Channels 201-300 under The Canada-United States FM ement of 1947. Exhibit No. ENG.

the proposed operation is for a channel in the range from channel 201 through 220 (88.1 through 1.9 MHz), or if this proposed operation is for a class D station in the range from Channel 221 nrough 300 (92.1 through 107.9 MHz), attach as an Exhibit a complete allocation study to establish the ack of prohibited overlap of contours with other U.S. stations. The allocation study should include the following: Exhibit No. ENG.

(a) The normally protected interference-free and the interfering contours for the proposed operation along all azimuths.
(b) Complete normally protected interference-free contours of all other proposals and existing stations to which objectionable interference would be caused.
(c) Interfering contours over pertinent arcs of all other proposals and existing stations from which objectionable interference would be received.
(d) Normally protected and interfering contours over pertinent arcs, of all other proposals and existing stations, which require study to show the absence of objectionable interference.
(e) Plot of the transmitter location of each station or proposal requiring investigation, with identifying call letters, file numbers and operating or proposed facilities.
(f) When necessary to show more detail, an additional allocation study will be attached utilizing a map with a larger scale to clearly show interference or absence thereof.
(g) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire Exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
(h) The name of the map(s) used in the Exhibit(s).

22. With regard to any stations separated by 53 or 54 channels (10.6 or 10.8 MHz) attach as an Exhibit information required in 1/ *(separation requirements involving intermediate frequency (i.f.) interference)*. Exhibit No. N/A

23.(a) Is the proposed operation on Channel 218, 219, or 220? [X] Yes [ ] No

(b) If the answer to (a) is yes, does the proposed operation satisfy the requirements of 47 C.F.R. Section 73.207? [X] Yes [ ] No **STATION IS GRANDFATHERED TO WNNM, CHANNEL 221A, AT 24 RATHER THAN 31 KM.**

(c) If the answer to (b) is yes, attach as an Exhibit information required in 1/ regarding separation requirements with respect to stations on Channels 221, 222 and 223. Exhibit No. ENG.

(d) If the answer to (b) is no, attach as an Exhibit a statement describing the short spacing(s) and how it or they arose. Exhibit No. ENG.

1/ A showing that the proposed operation meets the minimum distance separation requirements. Include existing stations, proposed stations, and cities which appear in the Table of Allotments; the location and geographic coordinates of each antenna, proposed antenna or reference point, as appropriate; and distance to each from proposed antenna location.

f authorization pursuant to 47 C.F.R. Section 73.215 is requested, attach as an Exhibit a complete engineering study to establish the lack of prohibited overlap of contours involving affected stations. The engineering study must include the following:

Exhibit No. N/A

(1) Protected and interfering contours, in all directions (360°), for the proposed operation.
(2) Protected and interfering contours, over pertinent arcs, of all short-spaced assignments, applications and allotments, including a plot showing each transmitter location, with identifying call letters or file numbers, and indication of whether facility is operating or proposed. For vacant allotments, use the reference coordinates as transmitter location.
(3) When necessary to show more detail, an additional allocation study utilizing a map with a larger scale to clearly show prohibited overlap will not occur.
(4) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
(5) The official title(s) of the map(s) used in the exhibits(s).

24. Is the proposed station for a channel in the range from Channel 201 to 220 (88.1 through 91.9 MHz) and the proposed antenna location within the distance to an affected TV Channel 6 station(s) as defined in 47 C.F.R. Section 73.525?

☐ Yes ☒ No

If Yes, attach as an Exhibit either a TV Channel 6 agreement letter dated and signed by both parties or a map and an engineering statement with calculations demonstrating compliance with 47 C.F.R. Section 73.525 for each affected TV Channel 6 station.

Exhibit No. N/A

25. Is the proposed station for a channel in the range from Channel 221 to 300 (92.1-107.9 MHz)?

☐ Yes ☒ No

If Yes, attach as an Exhibit information required in 1/. *(Except for Class D (secondary) proposals.)*

Exhibit No. N/A

26. Environmental Statement *(See 47 C.F.R. Section 1.1301 et seq.)*

Would a Commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environmental impact?

☐ Yes ☒ No

If you answer Yes, submit as an Exhibit an Environmental Assessment required by Section 1.1311.

Exhibit No. N/A

If No, explain briefly why not. NO CHANGE IN TOWER HEIGHT IS PROPOSED. PROPOSED FACILITY MEETS NON-IONIZING RADIATION GUIDELINES IN OST BULLETIN NUMBER 65.

CERTIFICATION

I certify that I have prepared this Section of this application on behalf of the applicant, and that after such preparation, I have examined the foregoing and found it to be accurate and true to the best of my knowledge and belief.

Name *(Typed or Printed)* EDWARD F. PERRY, JR.	Relationship to Applicant *(e.g., Consulting Engineer)* TECHNICAL CONSULTANT
Signature E F Perry Jr.	Address *(Include ZIP Code)* POST OFFICE BOX AA DUXBURY, MASSACHUSETTS 02331
Date NOVEMBER 14, 1990	Telephone No. *(Include Area Code)* (617) 585-9200

EDUCATIONAL FM ASSOCIATES • 19 Bolas Road • Duxbury, Massachusetts 02332
Telephone: (617) 585-9200

ENGINEERING EXHIBIT

1. INTRODUCTION

Educational FM Associates prepared this Engineering Exhibit to support an application by Middlebury College requesting a Construction Permit to increase power and relocte the transmitter site of non-commercial FM station WRMC at Middlebury, Vermont. Information contained herein is fully responsive to all paragraphs of Section V-B of Form 340. For clarity and convenience, exhibits called for in the form are referenced herein as figures and tables rather than as separate exhibits. As illustrated herein, the proposed WRMC Class A facilities comply fully with all FCC Rules and FM Allocation Policies.

2. FACILITIES REQUESTED

WRMC currently operates with 100 watts erp from an antenna 10 meters below average terrain at a site on the Middlebury College Campus. This application proposes to relocate the WRMC antenna to the tower currently used by commercial station WCVM, Channel 265A at Middlebury, Vermont, to increase power to 3.0 kilowatts, and to increase antenna HAAT to 76 meters. WRMC will continue to operate on 91.7 MHz, Channel 219A.

3. SITE INFORMATION

The proposed WRMC FM antenna will be side mounted on an existing 43 meter guyed tower owned by WCVM but located on property controlled by the town of Middlebury, Vermont. The site is located on Chipman Hill in a rural area of town 480 meters North of the Middlebury Town Reservoir. The existing tower is an established communications site and supports several two way radio and paging systems. This is the same site currently used by the licensed operation of WCVM and we are specifying the same coordinates as stated in the WCVM license. A full scale site map showing map margins is already on file with the Commission as part of the existing WCVM file. Pursuant to Commission Policy that map is not included here.

4. DETERMINATION OF ANTENNA HEIGHT ABOVE AVERAGE TERRAIN

Height of the terrain surrounding the proposed transmitter site was determined through the use of the Dataworld TERP terrain elevation retrieval computer program. This program uses the NGDC 30 second database which has been approved by the Commission for HAAT calculations in FM applications. Ground elevation at the base of the proposed antenna support structure was read directly from the Middlebury, Vermont 7.5 Minute USGS topographic map. All terrain data contained herein is in substantial agreement with information already on file for WCVM.

5. ALLOCATION STUDY

Distance between facilities was calculated using a computer program which duplicates the calculations specified in Section 73.208(b) of the Commission's Rules. Distance to contours was calculated using the Commission's F(50,50) and F(50-10) FM curves as appropriate. Contours for the proposed facilities with respect to other FM stations were based on an effective radiated power of 3.0 kilowatts at the HAAT specified herein. The Channel 6 interference contour was based on a maximum mixed polarity power of 3.075 kilowatts derived by summing the horizontal power with 1/40th of the vertical power. Table 1 shows detailed interference considerations. Notes to the table give technical assumptions for the study.

Table 1
Detailed Allocation Study - WRMC, Channel 219A

Channel	Call	Location	Distance in km.	
			Actual	Required
216A	WGDR	Plainfield, VT	64.4	31
217A	WIUV	Castleton, VT	46.5	31
218B	WRPI	Troy, NY	155.1	113
218A	WWLR	Lyndonville, VT	106.8	66
218D	WMTF	Stowe, VT	62.0	50
219A	WPCR	Plymouth, NH	122.0	115
219B	CBMB	Sherbrooke, QUE	185.2	161
219A	App.	Fort Ann, NY	70.1	MX
219A	App.	Queensbury, NY	82.4	MX
220A	WCFE	Plattsburg, NY	90.6	72
221A	WNNM	Port Henry, NY	25.6	24

Note: Required separations shown are based on the following assumptions for the stations involved.

For WGDR, WIUV, WRPI, WMTF, WPCR, and WCFE: Stations meet commercial separation rules for class shown.

For WWLR: 2.75 kilowatts erp at 30 meters HAAT on bearings toward the proposed WRMC site.

For CBMB: 25 kilowatts erp at a worst case HAAT of 200 meters. 40 dbu = 128.7 km. Proposed WRMC 60 dbu controur extends a maximum of 32.6 km. on any bearing. WRMC 34 dbu interference contour never crosses the U.S. Canadian border. See Figure 3.

For WNNM: Required spacing is pre Docket 80-90 grandfathered spacing between second adjacent channel Class A stations. Site change proposed extends spacing to WCVM from 24 to 25.6 kilometers.

6. TELEVISION CHANNEL 6 INTERFERENCE STUDY

There are no U.S. Channel 6 television stations licensed within 159 kilometers of the proposed WRMC site. The proposed WRMC 83.5 dbu Channel 6 interference contour extends less than 16 kilometers on any bearing and never reaches the U.S. - Canadian border.

7. COMPLIANCE WITH FCC NON-IONIZING RADIATION GUIDELINES

The proposed WRMC antenna will be centered vertically at the 24.4 meter point on a 42.7 meter tower. The station will operate with a maximum combined vertical and horizontal power of 6.0 kilowattts. The WCVM antenna is centered vertically at a point 39.6 meters above ground and operates with a combined vertical and horizontal power of 6.0 kilowatts. To ensure a worst case situation we will assume that both WRMC and WCVM operate from an antenna radiation center 24.4 meters above ground and radiate at total of 12.0 kilowatts. OST Bulletin

Number 65, published in October, 1985 by the Federal Communications Commission Office of Science and Technology entitled "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation" specifies several ways in which compliance with the FCC Guidelines can be tested. Here, Table 1 in Appendix B to the Bulletin indicates that based on a "worst case" type of antenna, the antenna radiation center for a 12 kilowatt station would have to be at least 20.1 meters from the nearest area where prolonged human exposure to radio frequency fields would be expected to occur. In the instant case it is clear that no violation of the guidelines would occur with respect to persons on the ground. A person climbing the tower might violate the guidelines. Hence access to the tower itself will be restricted and signs will be erected at the base of the tower warning of potentially dangerous radio frequency fields in the immediate area of the antennas. No maintenance will be performed on the tower or antenna system while r.f. power is being supplied to the antenna from the transmitter.

8. BLANKETING INTERFERENCE

The proposed FM antenna site is located at an established communications site in a rural area with a very low population density. There are no homes within 1/4 mile of the proposed site. Because of the relatively low power proposed

there is only a slight chance that problems with blanketing interference will develop. However, should blanketing interference problems occur, the applicant will abide by the Commission's Rules in resolving all reasonable interference complaints.

9. OTHER STATIONS AT PROPOSED SITE

The proposed WRMC antenna will be located at an established communications site currently occupied by Class A FM station WCVM and a number of two-way stations and paging transmitters. Under the Commission's "last man in" policy, WRMC will take full responsibility for curing any interference problems which result from the proposed operation including elimination of any objectionable interference caused by intermodulation to facilities in existence or authorized prior to grant of this application.

10. MUTUAL EXCLUSIVITY

The facilities proposed by WRMC are mutually exclusive with those proposed on Channel 219A at Queensbury, New York in Application ARN-890825MA and with those proposed in Application ARN-880127MA on Channel 219A in Fort Ann, New York. Neither application has "cut-off" protection. The proposed 40 dbu interference contour will overlap the proposed 60 dbu service contour of both applicants.

11. AREA AND POPULATION

The population and area to be served was calculated using the Dataworld POPCOUNT computer program which is based on 1980 U.S. Census figures. The proposed facilities will serve a 60 dbu population of 39,557 persons and a total of 2,061.2 square kilometers will be reached by the WRMC 60 dbu contour.

12. MAJOR CHANGE

The proposed changes will increase the WRMC 60 dbu service area by 1,851 square kilometers, an increase of 880%. This application is therefore a "major change" under the Commission's non-commercial FM processing rules.

13. EMERGENCY POWER

The applicant will install auxiliary power equipment to operate both the transmitter and studio facilities in the event commercial outside power fails.

14. CONCLUSION

The facilities proposed for non-commercial station WRMC comply fully with all FCC Rules and Allocation Policies.

Respectfully submitted,
EDUCATIONAL FM ASSOCIATES

Edward F. Perry, Jr.
November 14, 1990

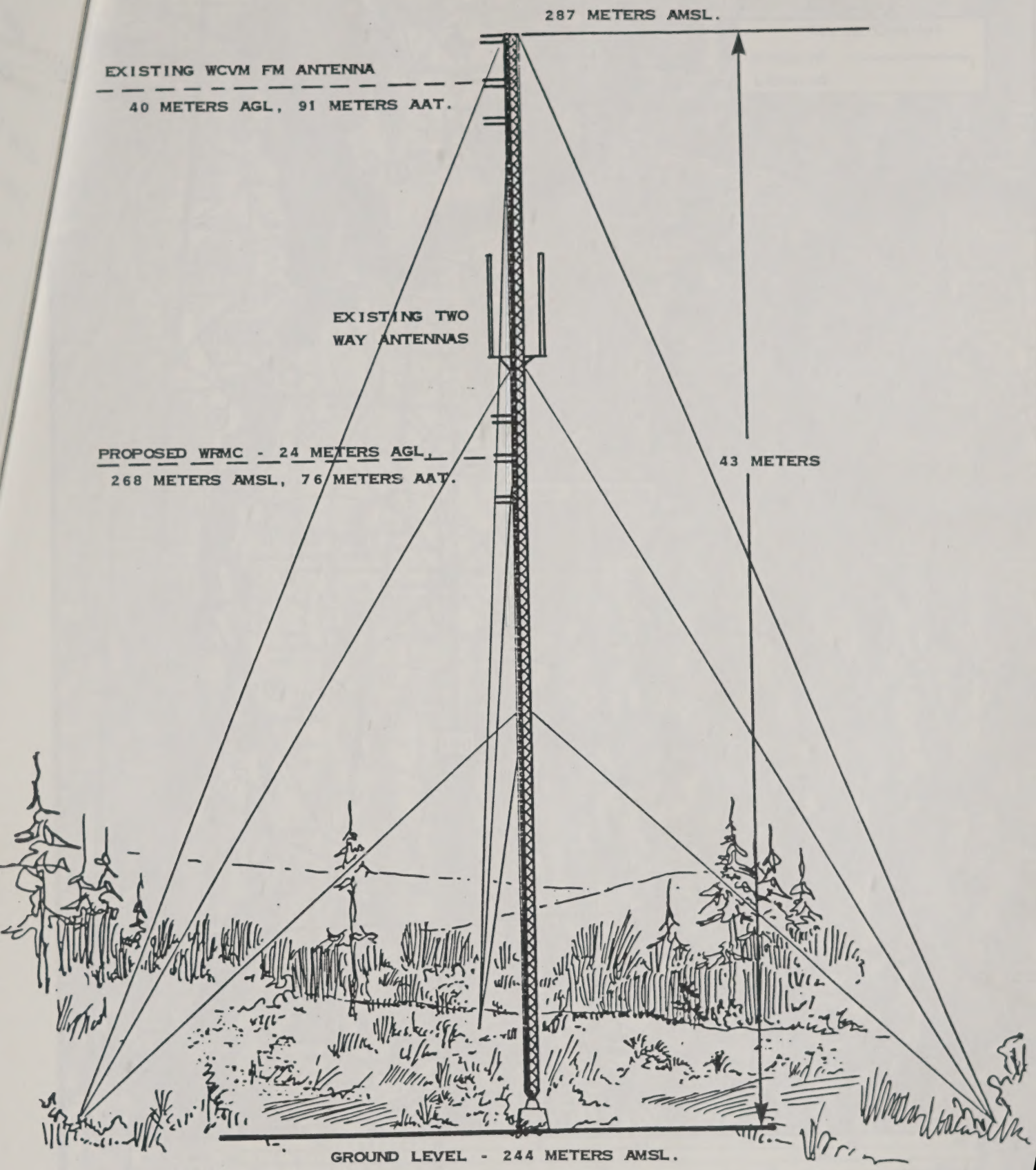


Figure 1. Sketch of Proposed WRMC Antenna System.

Figure 2. Location of Proposed WRMC Service Contour.

Figure 3. Detailed Allocation Study - Canadian Border.

)N VI – EQUAL EMPLOYMENT OPPORTUNITY PROGRAM

es the applicant propose to employ five or more full-time employees? ☐ Yes ☒ No

f Yes, the applicant must include an EEO program called for in the separate Broadcast Equal Employment Opportunity Program Report (FCC 396-A).

ECTION VII – CERTIFICATION

1. Has or will the applicant comply with the public notice requirements of 47 C.F.R. Section 73.3580? ☒ Yes ☐ No

The APPLICANT hereby waives any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. *(See Section 304 of the Communications Act of 1934, as amended.)*

The APPLICANT acknowledges that all the statements made in this application and attached exhibits are considered material representations, and that all exhibits are a material part hereof and incorporated herein.

The APPLICANT represents that this application is not filed for the purpose of impeding, obstructing, or delaying determination on any other application with which it may be in conflict.

In accordance with 47 C.F.R. Section 1.65, the APPLICANT has a continuing obligation to advise the Commission, through amendments, of any substantial and significant changes in information furnished.

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND IMPRISONMENT. U.S. CODE, TITLE 18, SECTION 1001.

I certify that the statements in this application are true and correct to the best of my knowledge and belief, and are made in good faith.

Name of Applicant	Title
MIDDLEBURY COLLEGE	Business Manager
Signature: James D. Ross	Date: Nov. 16, 1990

FCC NOTICE TO INDIVIDUALS REQUIRED BY THE PRIVACY ACT AND THE PAPERWORK REDUCTION ACT

The solicitation of personal information requested in this application is authorized by the Communications Act of 1934, as amended. The principal purpose for which the information will be used is to determine if the benefit requested is consistent with the public interest. The staff, consisting variously of attorneys, analysts, engineers and applications examiners, will use the information to determine whether the application should be granted, denied, dismissed, or designated for hearing. If all the information is not provided, the application may be returned without action having been taken upon it or its processing may be delayed while a request is made to provide the missing information. Accordingly, every effort should be made to provide all necessary information. Your response is required to obtain the requested authority.

Public reporting burden for this collection of information is estimated to vary from 76 to 80 hours with an average of 78 hours 04 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, can be sent to the Federal Communications Commission, Office of Managing Director, Washington, D.C. 20554, and to the Office of Management and Budget, Paperwork Reduction Project (3060-0034), Washington, D.C. 20503.

THE FOREGOING NOTICE IS REQUIRED BY THE PRIVACY ACT OF 1974, P.L. 93-579, DECEMBER 31, 1974, 5 U.S.C. 552a(e)(3), AND THE PAPERWORK REDUCTION ACT OF 1980, P.L. 96-511, DECEMBER 11, 1980, 44 U.S.C. 3507.

PUBLIC NOTICE

On November 16, 1990, Middlebury College tendered an application to the Federal Communications Commission proposing to relocate the transmitter and antenna site of Radio Station, WRMC, FM Channel 219A, 91.7 MHz, at Middlebury Vermont. WRMC currently operates with 100 watts of power from an antenna on the Middlebury College Campus. The new antenna site will be on Chipman Hill in Middlebury, Vermont at the existing WCVM antenna tower. That tower extends 140 feet above ground. WRMC proposes to operate on FM Channel 219A with an effective radiated power of 3.0 kilowatts from an antenna located 76 meters above average terrain. The WRMC studios will remain on the Middlebury College Campus.

A copy of the application and a list of the officers and members of the governing board of Middlebury College are on file for public inspection during normal business hours at the office of James Ross, Middlebury College Business Manager, Service Building, Middlebury College, Middlebury, Vermont.

****

Run this notice four or five times daily on WRMC for three weeks after you file the application. Keep the logs showing the times of broadcast but you needn't submit this information to the FCC unless they ask for it.

12-20-90 note to Dan Hanson asking him to send copy of log to J. Ross.

EDUCATIONAL FM ASSOCIATES • 19 Bolas Road • Duxbury, Massachusetts 02332
Telephone: (617) 585-9200

JAN 0 2 1991

INVOICE

To: Middlebury College

Date: December 28, 1990

For: Engineering work to facilitate settlement of frequency change with Pro Radio, inc.

Labor:	Meeting with Mark Brady on December 10, 1990. 11.0 hours @ $60.00/hr. (Includes travel).	$660.00.
	Determination of power possible for WRMC at Chipman Hill on Channel 216. 2.0 hours.	$120.00.
	Preparation of Comments in MM Docket 90-509. 2.0 hours.	$120.00.
	Total Labor Charges.....	$900.00
Expenses:	Auto Mileage. Duxbury to Middlebury, VT and return: 432 miles @ 25 cents/mile.	$108.00
	Tolls:	$1.50
	Terrain Computer Studies on WGDR at Plainfield, Vermont and WTBC at Williston, VT:	$200.00
	Fedex, Postage, & Telephone:	$24.50
	Total Expenses.....	$334.00
TOTAL NOW DUE AND PAYABLE		$1,234.00

Orig to Cathy Walsh
1-2-91

MIDDLEBURY COLLEGE
MEMORANDUM

RECEIVED
FEB 14

TO: Ms. Catherine Walsh

February 13, 1992

cc: Mr. David W. Ginevan
Mr. George W. Whitney, Jr

FROM: Mr. James D. Ross

SUBJECT: WRMC

Enclosed is a copy of our application for WRMC-FM (91.1 MHz) requesting 1.3 kiloWatts Effective Radiated Power on Chipman Hill tower. Please be sure it is available in the WRMC-FM Public Inspection File, as indicated in Bob Smith's letter received February 6, 1992 (photocopy enclosed.)

Also enclosed is Smith's bill for $1,557.29 which you should process for payment, please.

I will take care of the public notice required to be run in the Independent for three weeks.

Thanks.

James D. Ross
Business Manager

JDR:bd
Z-392

Enclosures

2-14-92
CC Please pay attached bill. File copy needed here. Thanks.

VOUCHER
MIDDLEBURY COLLEGE

Submit one copy only

Pay To R.M. Smith Associates
Broadcast Technical Consultants
8 Deer Run Road
Windham, NH 03087

Date February 19, 19921

Reason for Expenditure	Amount
Preparation of upgrade application for WRMC Roos - Upgrade application exhibits Expenses	$1557.29

WRMC

Approvals

Department Head _____ Date _____

Comptroller _____ Date _____

Revised 9/1/69

FOR COMPTROLLER'S OFFICE USE

CODE MONTH VENDOR (1–5)

DESCRIPTION (6–25)

ACCOUNT (62–71)	DISTRIBUTION
99 345 03	1 $1557.29
	2
	3
	4
	5
	6
NET TO PAY →	$1557.29 (72–79)

R. M. SMITH ASSOCIATES

BROADCAST TECHNICAL CONSULTANTS
8 DEER RUN ROAD WINDHAM, NEW HAMPSHIRE 03087
(603) 894-6968 FAX (603) 894-5546

FEB 06 1992

INVOICE

INVOICE # RMC-01

DATE 1/31/92

DATE	HOURS	SERVICES PERFORMED	AMOUNT
12/17-1/31	8	Smith - Preparation of upgrade application for WRMC	$400.00
12/17-1/31	18.5	Roos - Upgrade application exhibits	$647.50

EXPENSES:

Parts Telephone Research	$509.79	
Office Travel		$509.79

TOTAL THIS INVOICE $1,557.29

PAST DUE FROM PREVIOUS INVOICES

TOTAL DUE UPON RECEIPT $1,557.29

Middlebury College

Middlebury, VT 05753

Attn: Mr. James D. Ross

1-1/2% Service Charge On Amounts
Outstanding Over 30 Days

February 13, 1992

The Honorable Donna Searcy
Secretary
Federal Communications Commission
1919 M Street, NW
Washington, D.C. 20554

Re: Middlebury College Application for WRMC's Frequency Change

Dear Ms. Searcy:

Enclosed is an original and two copies of our application for WRMC-FM requesting 1.3 kiloWatts Effective Radiated Power on the Chipman Hill tower here in Middlebury.

Very truly yours,

JDR BD

James D. Ross
Business Manager

JDR:bd
Z-391
Enclosures

cc: Robert M. Smith, Jr.
WRMC-FM Public Inspection File

bc: David W. Ginevan
Catherine S. Walsh
John D. Bowker
George W. Whitney, Jr.

FEB 06 1992

R. M. SMITH ASSOCIATES

BROADCAST TECHNICAL CONSULTANTS
8 DEER RUN ROAD WINDHAM, NEW HAMPSHIRE 03087
(603) 894-6968 FAX (603) 894-5546

Mr. James D. Ross
Middlebury College
Middlebury, Vermont 05753

Dear Jim:

Enclosed is the application for the upgrade of WRMC. The application requests 1.3 kiloWatts Effective Radiated Power on the Chipman Hill tower.

- The application must be signed by an officer of the school on the last page of the application form
- Prepare three copies of the application and all exhibits (I have included three copies of the large map - Exhibit 7 Figure 1)
- File the original and two copies of the application and all exhibits with:

  Hon. Donna Searcy
  Secretary
  Federal Communications Commission
  1919 M Street NW
  Washington, D.C. 20554

- Place a copy of the application with all exhibits in the WRMC(FM) Public Inspection File.

- Comply with the Public Notice provisions of F.C.C. Rules and Regulations Section 73.3580 (copy attached)

If you have any questions or need any additional information, please give me a call.

Regards,

Robert M. Smith Jr.
President

Enclosure

73.3580 LOCAL PUBLIC NOTICE OF FILING OF BROADCAST APPLICATIONS.

(a) All applications for instruments of authorization in the broadcast service (and major amendments thereto, as indicated in §§73.3571, 73.3572, 73.3573, 73.3574 and 73.3578) are subject to the local public notice provisions of t his section, except applications for: (Added 79-371, 7/9/79)

(1) A minor change in the facilities of an authorized station, as indicated in §§73.3571, 73.3572, 73.3573 and 73.3574. (Added 79-371, 7/9/79)

(2) Consent to an involuntary assignment or transfer or to a voluntary assignment or transfer which does not result in a change of control and which may be applied for on FCC Form 316 pursuant to the provisions of §73.3540(b). (Added 79-371, 7/9/79

[Next Page No. is 741]

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FEDERAL COMMUNICATIONS COMMISSION RULES - PART 73

(1) NOTICE REQURIEMENTS FOR THESE APPLICANTS ARE AS FOLLOWS.

(i) In a daily newspaper of general circulation published in the community in which the station is located, or proposed to be located, atleast twice a week for two consecutive weeks in a three-week period; or,

(ii) If there is no such daily newspaper, in a weekly newspaper of general circulation published in that community, once a week for 3 consecutive weeks in a 4-week period; or,

(iii) If there is no daily or weekly newspaper published in that community, in the daily newspaper from wherever published, which has the greatest general circulation in that community, twice a week for 2 consecutive weeks within a 3-week period.

(2) NOTICE REQUIREMENTS FOR APPLICANTS FOR A PERMIT PURSUANT TO SECTION 325(b) OF THE COMMUNICATIONS ACT ("* * * STUDIOS OF FOREIGN STATIONS") ARE AS FOLLOWS:

In a daily newspaper of general circulation in the largest city in the principal area to be served in the U.S.A. by the foreign broadcast station, at least twice a week for 2 consecutive weeks within a three-week period.

(3) NOTICE REQUIREMENTS FOR APPLICANTS FOR A CHANGE IN STATION LOCATION ARE AS FOLLOWS:

In the community in which the station is located and the one in which it is proposed to be located, in a newspaper with publishing requirements as in paragraphs (c)(1)(i), (ii) or (iii) of this section.

(4) The notice required in paragraphs (c)(1), (2) and (3) of this section shall contain the information described in paragraph (f) of this section.

(d) The licensee of an operating broadcast station who files an application or amendment thereto which is subject to the provisions of this section must give notice as follows: (Added 79-371, 7/9/79)

Paragraphs (c)(1), (2), (3), and (4) were inadvertently omitted from Amendment No. 87-244. They are included above. The previous wording is not shown.

COPYRIGHT, 1988 WASHINGTON, D.C.

(f) The notice required by paragraphs (c) and (d) of this section shall contain, when applicable, the following information, except as otherwise provided in paragraphs (d)(1) and (2) and (e) of this section in regard to renewal applications. (Revised 81-276, 7/13/81)

(1) The name of the applicant, if the applicant is an individual; the names of all partners, if the applicant is a partnership; or the names of all officers and directors and of those persons holding 10% or more of the capital stock or other ownership interest if the applicant is a corporation or an unincorporated association. (In the case of applications for assignment or transfer of control, information should be included for all parties to the application.) (Added 79-371, 7/9/79)

(2) The purposes for which the application was or will be filed (such as construction permit, modification, assignment or transfer of control.) (Revised 81-276, 7/13/81)

(3) The date when the application or amendment was tendered for filing with the FCC. (Added 79-371, 7/9/79)

(4) The call letters, if any, of the station, and the frequency or channel on which the station is operating or proposes to operate. (Added 79-371, 7/9/79)

(5) In the case of an application for construction permit for a new station, the facilities sought, including type and class of station, power, location of studios, transmitter site and antenna height. (Added 79-371, 7/9/79)

(6) In the case of an application for modification of a construction permit or license, the exact nature of the modification sought. (Added 79-371, 7/9/79)

(7) In the case of an amendment to an application, the exact nature of the amendment. (Added 79-371, 7/9/79)

(8) In the case of applications for a permit pursuant to Section 325(b) of the Communications Act (" ... studios of foreign stations"), the call letters and location of the foreign radio broadcast station, the frequency or channel on which it operates, and a description of the programs to be transmitted over the station. (Added 79-371, 7/9/79)

(9) A statement that a copy of the application, amendment(s), and related materials are on file for public inspection at a stated address in the community in which the ~~main studio is maintained or is proposed to be located~~ station is located or is proposed to be located. See §§73.3526 and 73.3527.

 COPYRIGHT, 1987

Federal Communications Commission
Washington, D. C. 20554

FCC 340

Approved by OMB
3060-0034
Expires 4/30/92
See Page 23 for information regarding public burden estimate

APPLICATION FOR CONSTRUCTION PERMIT FOR NONCOMMERCIAL EDUCATIONAL BROADCAST STATION

(Carefully read instructions before filing form) Return only form to FCC

For Commission Use Only
File No.

Section I - GENERAL INFORMATION

1. Name of Applicant		
The President and Fellows of Middlebury College		
Street Address or P.O. Box: Middlebury College		
City: Middlebury	State: VT	ZIP Code: 05753
Telephone No. (Include Area Code): (802)-388-3711		

Send notices and communications to the following person at the address below:		
Name: Mr. James D. Ross 1/		
Street Address or P.O. Box: Middlebury College		
City: Middlebury	State: VT	ZIP Code: 05753
Telephone No. (Include Area Code): (802)-388-3711		

2. This application is for: ☐ AM ☒ FM ☐ TV

(a) Channel No. or Frequency	(b) Principal Community	City	State
216		Middlebury	VT

(c) Check one of the following boxes:

☐ Application for **NEW** station

☒ **MAJOR** change in licensed facilities; call sign: ..... WRMC(FM)

☐ **MINOR** change in licensed facilities; call sign: .....

☐ **MAJOR** modification of construction permit; call sign: .....

File No. of construction permit: .....

☐ **MINOR** modification of construction permit; call sign: .....

File No. of construction permit: .....

☐ **AMENDMENT** to pending application; application file number: .....

NOTE: It is not necessary to use this form to amend a previously filed application. Should you do so, however, please submit only Section I and those other portions of the form that contain the amended information.

3. Is this application mutually exclusive with a renewal application? ☐ Yes ☒ No

If Yes, state:	Call letters	Community of License: City	Community of License: State

1/ with copy to: R.M. Smith Associates 8 Deer Run Road Windham, NH 03087

STATEMENT IN LIEU OF FILING SECTIONS II, III, & IV OF F.C.C. FORM 340 AND RELATED EXHIBITS

President and Fellows of Middlebury College
WRMC(FM) - Middlebury, Vermont
January 1992

All legal information regarding Middlebury College and Radio Station WRMC(FM) presently on file with the Federal Communications Commission remains correct. All such information is hereby incorporated into this application by reference.

Since this application proposes a modification of existing facilities, financial qualifications are neither required nor included herein.

The applicant proposes no significant changes in programming and the information requested by Section IV of form 340 on file with the F.C.C. is hereby incorporated by reference.

es the application propose to correct previous site coordinates? ☐ Yes
Yes, list old coordinates.

atitude ° ' "	Longitude ° '

. Has the FAA been notified of the proposed construction? ☒ Yes ☐ No
If Yes, give date and office where notice was filed and attach as an Exhibit a copy of FAA determination, if available.

Exhibit No.

Date 1/28/92 Office where filed New Eng. Region, Burlington, MA

6. List all landing areas within 8 km of antenna site. Specify distance and bearing from structure to nearest point of the nearest runway.

	Landing Area	Distance (km)	Bearing (degrees True)
(a)	Middlebury State Airport	7.2 km	135°
(b)			

7. (a) Elevation: *(to the nearest meter)*

(1) of site above mean sea level; 244 meters

(2) of the top of supporting structure above ground (including antenna, all other appurtenances, and lighting, if any); and 43 meters

(3) of the top of supporting structure above mean sea level [(aX1) + (aX2)] 287 meters

(b) Height of radiation center: *(to the nearest meter)* H = Horizontal; V = Vertical

(1) above ground
24 meters (H)
24 meters (V)

(2) above mean sea level [(aX1) + (bX1)]
268 meters (H)
268 meters (V)

(3) above average terrain
76 meters (H)
76 meters (V)

8. Attach as an Exhibit sketch(es) of the supporting structure, labelling all elevations required in Question 7 above, except item 7(bX3). If mounted on an AM directional-array element, specify heights and orientations of all array towers, as well as location of FM radiator.

Exhibit No. ENG-1

9. Effective Radiated Power:
(a) ERP in the horizontal plane 1.3 kw (H*) 1.3 kw (V*)

(b) Is beam tilt proposed? ☐ Yes ☒ No

If Yes, specify maximum ERP in the plane of the tilted beam, and attach as an Exhibit a vertical elevational plot of radiated field.

Exhibit No. --

_____ kw (H*) _____ kw (V*)

*Polarization

a directional antenna proposed? ☐ Yes ☒ No

If Yes, attach as an Exhibit a statement with all data specified in 47 C.F.R. Section 73.316, including plot(s) and tabulations of horizontally and vertically polarized radiated components in terms of relative field. Exhibit No. ---

1. Will the main studio be located within the 70 dBu or 3.16 mV/m contour? ☒ Yes ☐ No

If No, attach as an Exhibit justification pursuant to 47 C.F.R. Section 73.1125. Exhibit No. ---

12. Are there: (a) within 60 meters of the proposed antenna, any proposed or authorized FM or TV transmitters, or any nonbroadcast *(except citizens band or amateur)* radio stations; or (b) within the blanketing contour, any established commercial or government receiving stations, cable head-end facilities, or populated areas; or (c) within ten (10) kilometers of the proposed antenna, any proposed or authorized FM or TV transmitters which may produce receiver-induced intermodulation interference? ☒ Yes ☐ No

If Yes, attach as an Exhibit a description of any expected, undesired effects of operations and remedial steps to be pursued if necessary, and a statement accepting full responsibility for the elimination of any objectionable interference (including that caused by receiver-induced or other types of modulation) to facilities in existence or authorized or to radio receivers in use prior to grant of this application. *(See 47 C.F.R. Sections 73.315(b), 73.316(d) and 73.318.)* Exhibit No. ENG-2

13. Attach as an Exhibit a 7.5 minute series U.S. Geological Survey topographic quadrangle map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply with the requirements set forth in Instruction D for Section V. Further, the map must clearly and legibly display the original printed contour lines and data as well as latitude and longitude markings, and must bear a scale of distance in kilometers. Exhibit No. ENG-3

14. Attach as an Exhibit *(name the source)* a map which shows clearly, legibly, and accurately, and with the original printed latitude and longitude markings and a scale of distance in kilometers: Exhibit No. ENG-4

(a) the proposed transmitter location, and the radials along with profile graphs have been prepared;

(b) the 1 mV/m predicted contour and, for noncommercial educational applicants applying on a commercial channel, the 3.16 mV/m contour; and

(c) the legal boundaries of the principal community to be served.

15. Specify area in square kilometers (1 sq. mi. = 2.59 sq. km.) and population (latest census) within the predicted 1 mV/m contour.

Area 1402.6 sq. km. Population 28,505 1986 Census Update

16. Attach as an Exhibit a map *(Sectional Aeronautical charts where obtainable)* showing the present and proposed 1 mV/m (60 dbu) contours. Exhibit No. ENG-5

Enter the following from Exhibit above:

Gain Area 460.4 sq. mi.

Loss Area 0 sq. mi.

Percent change (gain area plus loss area as percentage of present area) 667 %.
If 50% or more this constitutes a major change. Indicate in question 2(c), Section I, accordingly.

Section V-B - FM BROADCAST ENGINEERING DATA

FOR COMMISSION USE ONLY

File No. _____

ASB Referral Date _____

Referred by _____

Name of Applicant

The President and Fellows of Middlebury College

Call letters *(if issued)*	Is this application being filed in response to a window? ☐ Yes ☒ No
WRMC(FM)	If Yes, specify closing date: _____

Purpose of Application: *(check appropriate box(es))*

- ☐ Construct a new (main) facility
- ☐ Modify existing construction permit for main facility
- ☒ Modify licensed main facility
- ☐ Construct a new auxiliary facility
- ☐ Modify existing construction permit for auxiliary facility
- ☐ Modify licensed auxiliary facility

If purpose is to modify, indicate below the nature of change(s) and specify the file number(s) of the authorizations affected.

- ☒ Antenna supporting-structure height
- ☒ Antenna height above average terrain
- ☒ Antenna location
- ☐ Main Studio location
- ☒ Effective radiated power
- ☐ Frequency
- ☐ Class
- ☐ Other *(Summarize briefly)*

File Number(s) ~~BLED-820201AI~~

1. Allocation:

Channel No.	Principal community to be served:		
	City	County	State
216	Middlebury	Addison	VT

Class *(check only one box below)*

☒ A ☐ B1 ☐ B ☐ C3

☐ C2 ☐ C1 ☐ C ☐ D

2. Exact location of antenna.

(a) Specify address, city, county and state. If no address, specify distance and bearing relative to the nearest town or landmark.

On Chipman Hill, 480 meters north of town reservoir, Middlebury Township, Addison County, Vermont

(b) Geographical coordinates (to nearest second). If mounted on element of an AM array, specify coordinates of center of array. Otherwise, specify tower location. Specify South Latitude or East Longitude where applicable; otherwise, North Latitude or West Longitude will be presumed.

Latitude	°	'	"	Longitude	°	'	"
	44	01	34		73	09	44

3. Is the supporting structure the same as that of another station(s) or proposed in another pending application(s)? ☒ Yes ☐ No

If Yes, give call letter(s) or file number(s) or both. WCVM(FM), Middlebury, VT

If proposal involves a change in height of an existing structure, specify existing height above ground level including antenna, all other appurtenances, and lighting, if any.

Does Not Apply

7. For an application involving an auxiliary facility only, attach as an Exhibit a map *(Sectional Aeronautical Chart or equivalent)* that shows clearly, legibly, and accurately, and with latitude and longitude markings and a scale of distance in kilometers:

Exhibit No. ---

(a) the proposed auxiliary 1 mV/m contour; and

(b) the 1 mV/m contour of the licensed main facility for which the applied-for facility will be auxiliary. Also specify the file number of the license. See 47 C.F.R. Section 73.1675. (File No.: _____)

18. Terrain and coverage data *(to be calculated in accordance with 47 C.F.R. Section 73.313).*

Source of terrain data: *(check only one box below)*

[X] Linearly interpolated 30-second database [ ] 7.5 minute topographic map

(Source: NGDC via Dataworld)

[ ] Other *(briefly summarize)*

Radial bearing (degrees True)	Height of radiation center above average elevation of radial from 3 to 16 km (meters)	Predicted Distances to the 1 mV/m contour (kilometers)
0	156.9	24.5
45	-20.0	10.9
90	-170.8	10.9
135	-66.1	10.9
180	151.2	24.1
225	170.7	25.4
270	190.7	26.7
315	193.1	26.8

Allocation Studies

(See Subpart C of 47 C.F.R. Part 73)

19. Is the proposed antenna location within 320 kilometers (199 miles) of the common border between the United States and Mexico? [ ] Yes [X] No

If Yes, attach as an Exhibit a showing of compliance with all provisions of the Agreement between the United States of America and the United Mexican States concerning Frequency Modulation Broadcasting in the 88 to 108 MHz band.

Exhibit No. ---

Is the proposed antenna location within 320 kilometers of the common border between the United States and Canada? [XX] Yes [ ] No

If Yes, attach as an Exhibit a showing of compliance with all provisions of the Working Agreement for Allocation of FM Broadcasting Stations on Channels 201-300 under The Canada-United States FM Agreement of 1947. Exhibit No. ENG-6

21. If the proposed operation is for a channel in the range from channel 201 through 220 (88.1 through 91.9 MHz), or if this proposed operation is for a class D station in the range from Channel 221 through 300 (92.1 through 107.9 MHz), attach as an Exhibit a complete allocation study to establish the lack of prohibited overlap of contours with other U.S. stations. The allocation study should include the following: Exhibit No. ENG-7

(a) The normally protected interference-free and the interfering contours for the proposed operation along all azimuths.
(b) Complete normally protected interference-free contours of all other proposals and existing stations to which objectionable interference would be caused.
(c) Interfering contours over pertinent arcs of all other proposals and existing stations from which objectionable interference would be received.
(d) Normally protected and interfering contours over pertinent arcs, of all other proposals and existing stations, which require study to show the absence of objectionable interference.
(e) Plot of the transmitter location of each station or proposal requiring investigation, with identifying call letters, file numbers and operating or proposed facilities.
(f) When necessary to show more detail, an additional allocation study will be attached utilizing a map with a larger scale to clearly show interference or absence thereof.
(g) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire Exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
(h) The name of the map(s) used in the Exhibit(s).

22. With regard to any stations separated by 53 or 54 channels (10.6 or 10.8 MHz) attach as an Exhibit information required in 1/ *(separation requirements involving intermediate frequency (i.f.) interference)*. Exhibit No. ENG-8

23.(a) Is the proposed operation on Channel 218, 219, or 220? [ ] Yes [X] No

(b) If the answer to (a) is yes, does the proposed operation satisfy the requirements of 47 C.F.R. Section 73.207? [ ] Yes [ ] No

(c) If the answer to (b) is yes, attach as an Exhibit information required in 1/ regarding separation requirements with respect to stations on Channels 221, 222 and 223. Exhibit No. ---

(d) If the answer to (b) is no, attach as an Exhibit a statement describing the short spacing(s) and how it or they arose. Exhibit No. ---

1/ A showing that the proposed operation meets the minimum distance separation requirements. Include existing stations, proposed stations, and cities which appear in the Table of Allotments; the location and geographic coordinates of each antenna, proposed antenna or reference point, as appropriate; and distance to each from proposed antenna location.

(e) If authorization pursuant to 47 C.F.R. Section 73.215 is requested, attach as an Exhibit a complete engineering study to establish the lack of prohibited overlap of contours involving affected stations. The engineering study must include the following:

Exhibit No. ---

(1) Protected and interfering contours, in all directions (360°), for the proposed operation.
(2) Protected and interfering contours, over pertinent arcs, of all short-spaced assignments, applications and allotments, including a plot showing each transmitter location, with identifying call letters or file numbers, and indication of whether facility is operating or proposed. For vacant allotments, use the reference coordinates as transmitter location.
(3) When necessary to show more detail, an additional allocation study utilizing a map with a larger scale to clearly show prohibited overlap will not occur.
(4) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
(5) The official title(s) of the map(s) used in the exhibits(s).

24. Is the proposed station for a channel in the range from Channel 201 to 220 (88.1 through 91.9 MHz) and the proposed antenna location within the distance to an affected TV Channel 6 station(s) as defined in 47 C.F.R. Section 73.525?

[X] Yes [ ] No

If Yes, attach as an Exhibit either a TV Channel 6 agreement letter dated and signed by both parties or a map and an engineering statement with calculations demonstrating compliance with 47 C.F.R. Section 73.525 for each affected TV Channel 6 station.

Exhibit No. ENG-9

25. Is the proposed station for a channel in the range from Channel 221 to 300 (92.1-107.9 MHz)?

[ ] Yes [X] No

If Yes, attach as an Exhibit information required in 1/. *(Except for Class D (secondary) proposals.)*

Exhibit No. ---

26. Environmental Statement *(See 47 C.F.R. Section 1.1301 et seq.)*

Would a Commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environmental impact?

[ ] Yes [X] No

If you answer Yes, submit as an Exhibit an Environmental Assessment required by Section 1.1311.

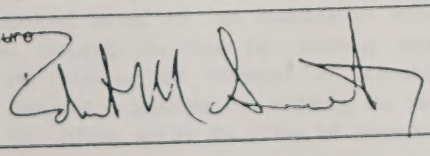
Exhibit No.

If No, explain briefly why not.

See Exhibit 10

CERTIFICATION

I certify that I have prepared this Section of this application on behalf of the applicant, and that after such preparation, I have examined the foregoing and found it to be accurate and true to the best of my knowledge and belief.

Name *(Typed or Printed)* Robert M. Smith Jr.	Relationship to Applicant *(e.g., Consulting Engineer)* Technical Consultant
Signature 	Address *(Include ZIP Code)* 8 Deer Run Road Windham, NH 03087
Date January 28, 1992	Telephone No. *(Include Area Code)* (603) -894-6968

SECTION VI – EQUAL EMPLOYMENT OPPORTUNITY PROGRAM

Does the applicant propose to employ five or more full-time employees? ☐ Yes ☐ No

If Yes, the applicant must include an EEO program called for in the separate Broadcast Equal Employment Opportunity Program Report (FCC 396-A).

SECTION VII – CERTIFICATION

1. Has or will the applicant comply with the public notice requirements of 47 C.F.R. Section 73.3580? ☒ Yes ☐ No

The APPLICANT hereby waives any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. *(See Section 304 of the Communications Act of 1934, as amended.)*

The APPLICANT acknowledges that all the statements made in this application and attached exhibits are considered material representations, and that all exhibits are a material part hereof and incorporated herein.

The APPLICANT represents that this application is not filed for the purpose of impeding, obstructing, or delaying determination on any other application with which it may be in conflict.

In accordance with 47 C.F.R. Section 1.65, the APPLICANT has a continuing obligation to advise the Commission, through amendments, of any substantial and significant changes in information furnished.

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND IMPRISONMENT. U.S. CODE, TITLE 18, SECTION 1001.

I certify that the statements in this application are true and correct to the best of my knowledge and belief, and are made in good faith.

Name of Applicant	Title
The President and Fellows of Middlebury College	VP for Admin. & Treasurer
Signature: David W. Smiley	Date: 2·12·92

FCC NOTICE TO INDIVIDUALS REQUIRED BY THE PRIVACY ACT AND THE PAPERWORK REDUCTION ACT

The solicitation of personal information requested in this application is authorized by the Communications Act of 1934, as amended. The principal purpose for which the information will be used is to determine if the benefit requested is consistent with the public interest. The staff, consisting variously of attorneys, analysts, engineers and applications examiners, will use the information to determine whether the application should be granted, denied, dismissed, or designated for hearing. If all the information is not provided, the application may be returned without action having been taken upon it or its processing may be delayed while a request is made to provide the missing information. Accordingly, every effort should be made to provide all necessary information. Your response is required to obtain the requested authority.

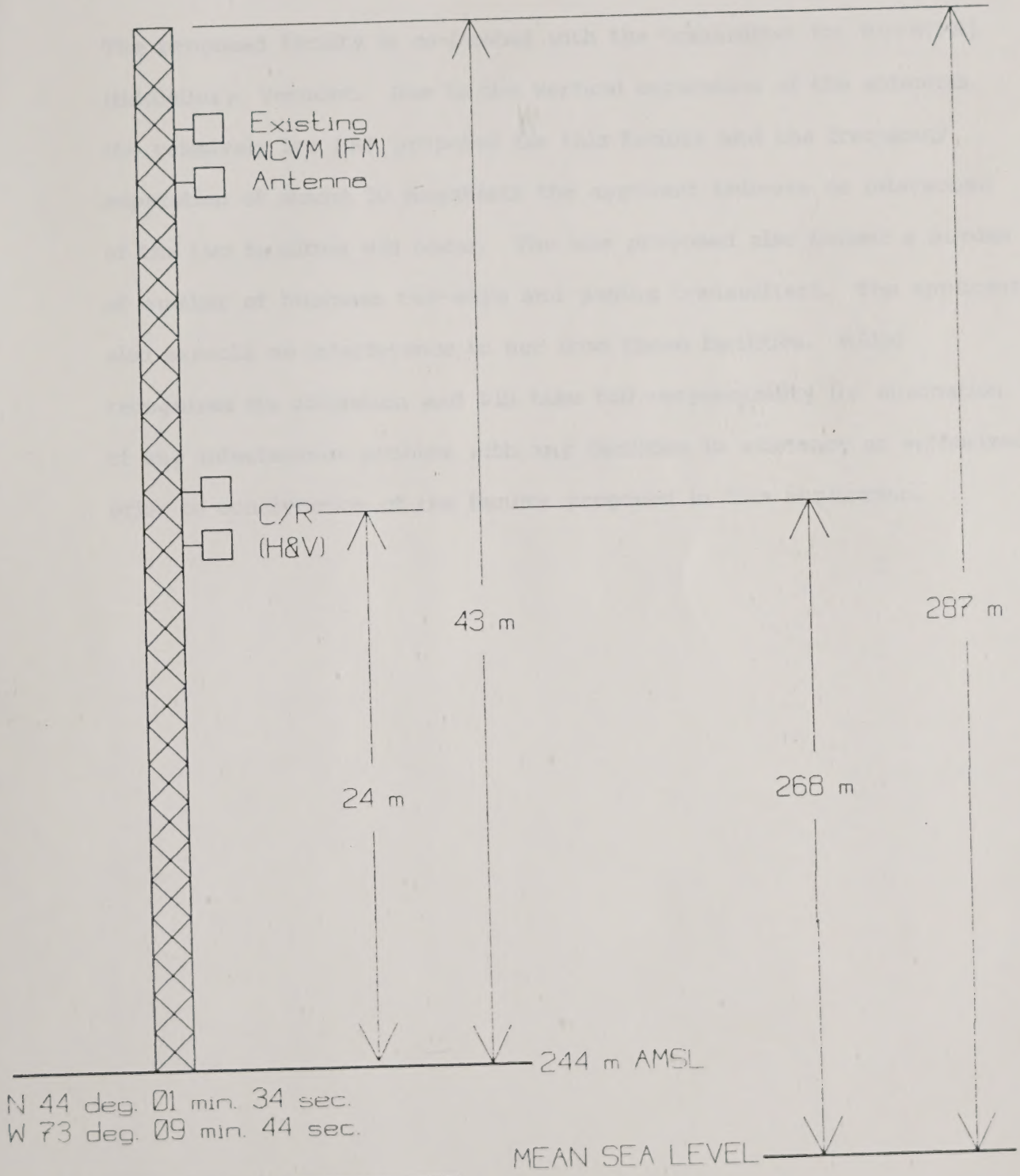
Public reporting burden for this collection of information is estimated to vary from 76 to 80 hours with an average of 78 hours 04 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, can be sent to the Federal Communications Commission, Office of Managing Director, Washington, D.C. 20554, and to the Office of Management and Budget, Paperwork Reduction Project (3060-0034), Washington, D.C. 20503.

THE FOREGOING NOTICE IS REQUIRED BY THE PRIVACY ACT OF 1974, P.L. 93-579, DECEMBER 31, 1974, 5 U.S.C. 552a(e)(3), AND THE PAPERWORK REDUCTION ACT OF 1980, P.L. 96-511, DECEMBER 11, 1980, 44 U.S.C. 3507.

WRMC (FM)

SUPPORTING STRUCTURE
VERTICAL PLAN SKETCH

EXHIBIT ENG-1



N 44 deg. 01 min. 34 sec.
W 73 deg. 09 min. 44 sec.

Drawing Not To Scale

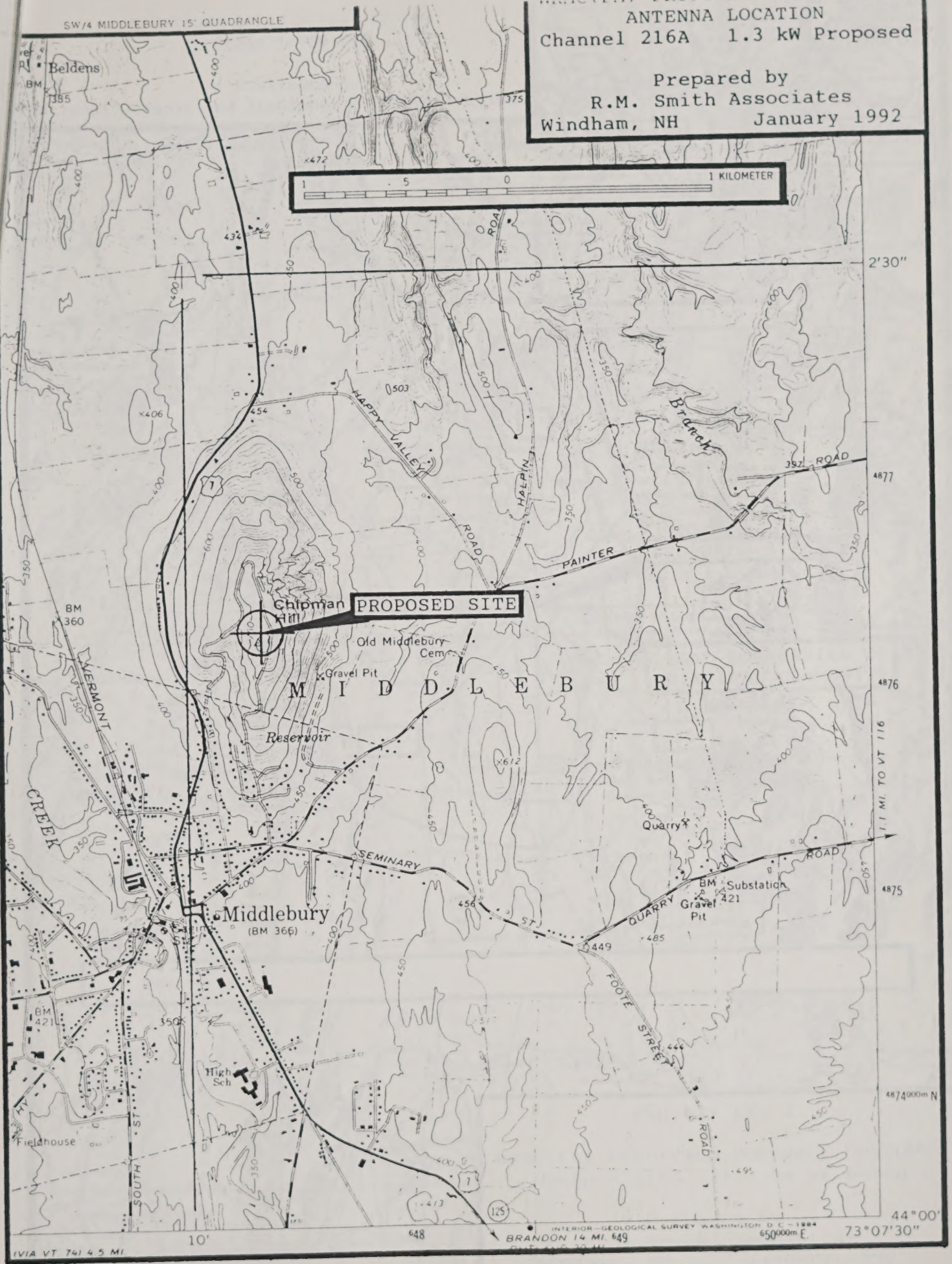
R.M. Smith Associates

January 1992

EXHIBIT ENG-2

President and Fellows of Middlebury College
WRMC(FM) - Middlebury, Vermont
January 1992

The proposed facility is co-located with the transmitter for WCVM(FM), Middlebury, Vermont. Due to the vertical separation of the antennas, the relatively low ERP proposed for this facility and the frequency separation of almost 10 MegaHertz the applicant believes no interaction of the two facilities will occur. The site proposed also houses a number of number of business two-ways and paging transmitters. The applicant also expects no interference to nor from those facilities. WRMC recognizes its obligation and will take full responsibility for elimination of any interference problem with any facilities in existence or authorized prior to construction of the facility proposed in this application.


ANTENNA LOCATION
Channel 216A 1.3 kW Proposed
Prepared by
R.M. Smith Associates
Windham, NH January 1992
SW/4 MIDDLEBURY 15' QUADRANGLE
1 KILOMETER
PROPOSED SITE
Chipman Hill
Old Middlebury Cem.
Gravel Pit
Reservoir
MIDDLEBURY
Middlebury
(BM 366)
Beldens
BM 385
BM 360
BM 421
HAPPY VALLEY ROAD
HALPIN ROAD
PAINTER ROAD
VERMONT
CREEK
SEMINARY ST
SOUTH ST
QUARRY ROAD
FOOTE STREET
Quarry
BM Substation
Gravel Pit
High Sch
Fieldhouse
Brook
1.1 MI. TO VT 116
BRANDON 14 MI.
(VIA VT 74) 4.5 MI
2'30"
10'
44°00'
73°07'30"
4877
4876
4875
4874000m N
650000m E
INTERIOR—GEOLOGICAL SURVEY WASHINGTON, D.C.—1984

Sectional Aeronautical Charts
Scale 1:500,000

Published by
National Oceanic and Atmospheric Administration

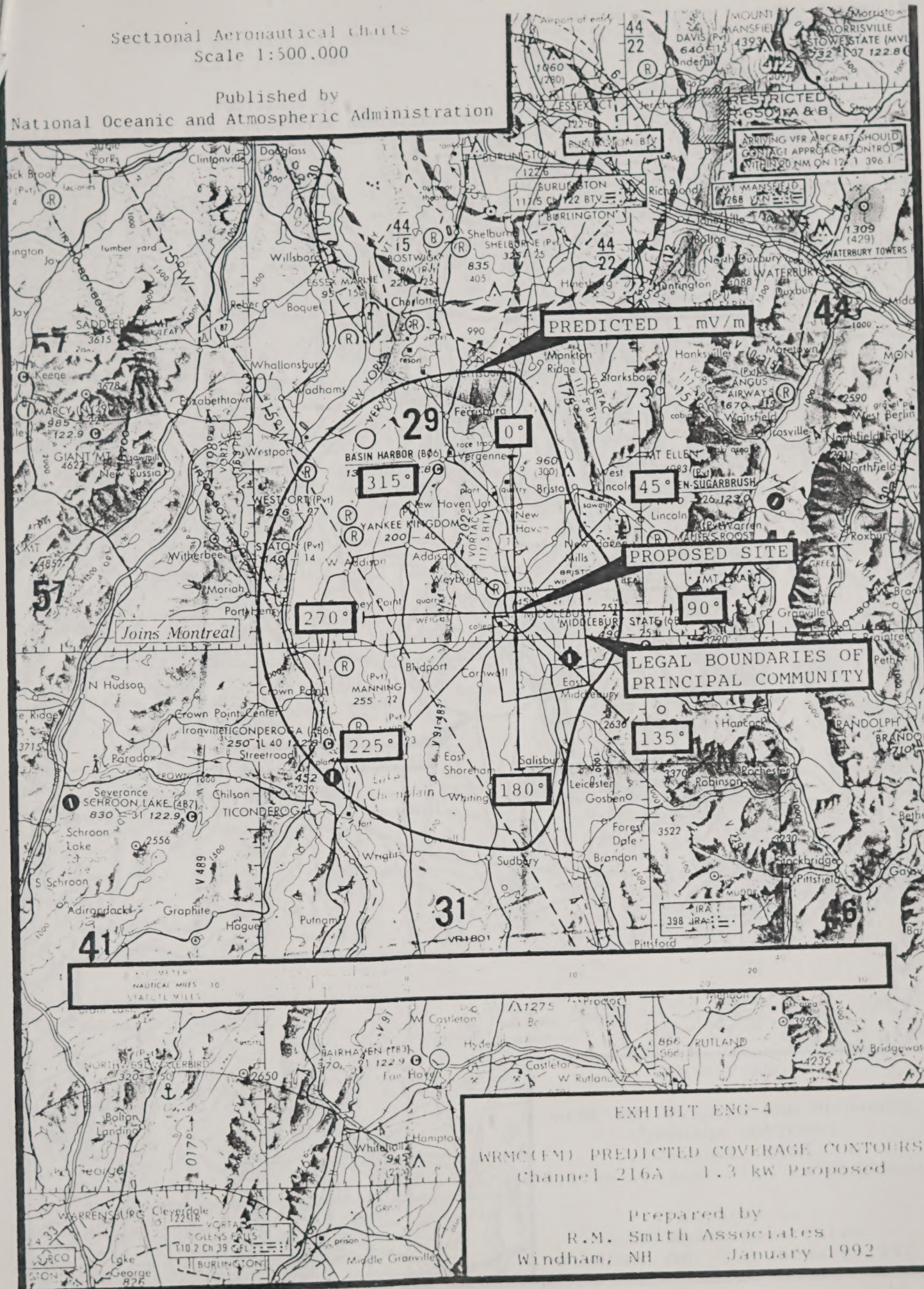


EXHIBIT ENG-4

WRMC(FM) PREDICTED COVERAGE CONTOURS
Channel 216A 1.3 kW Proposed

Prepared by
R.M. Smith Associates
Windham, NH January 1992

Sectional Aeronautical Charts
Scale 1:500,000

Published by
National Oceanic and Atmospheric Administration

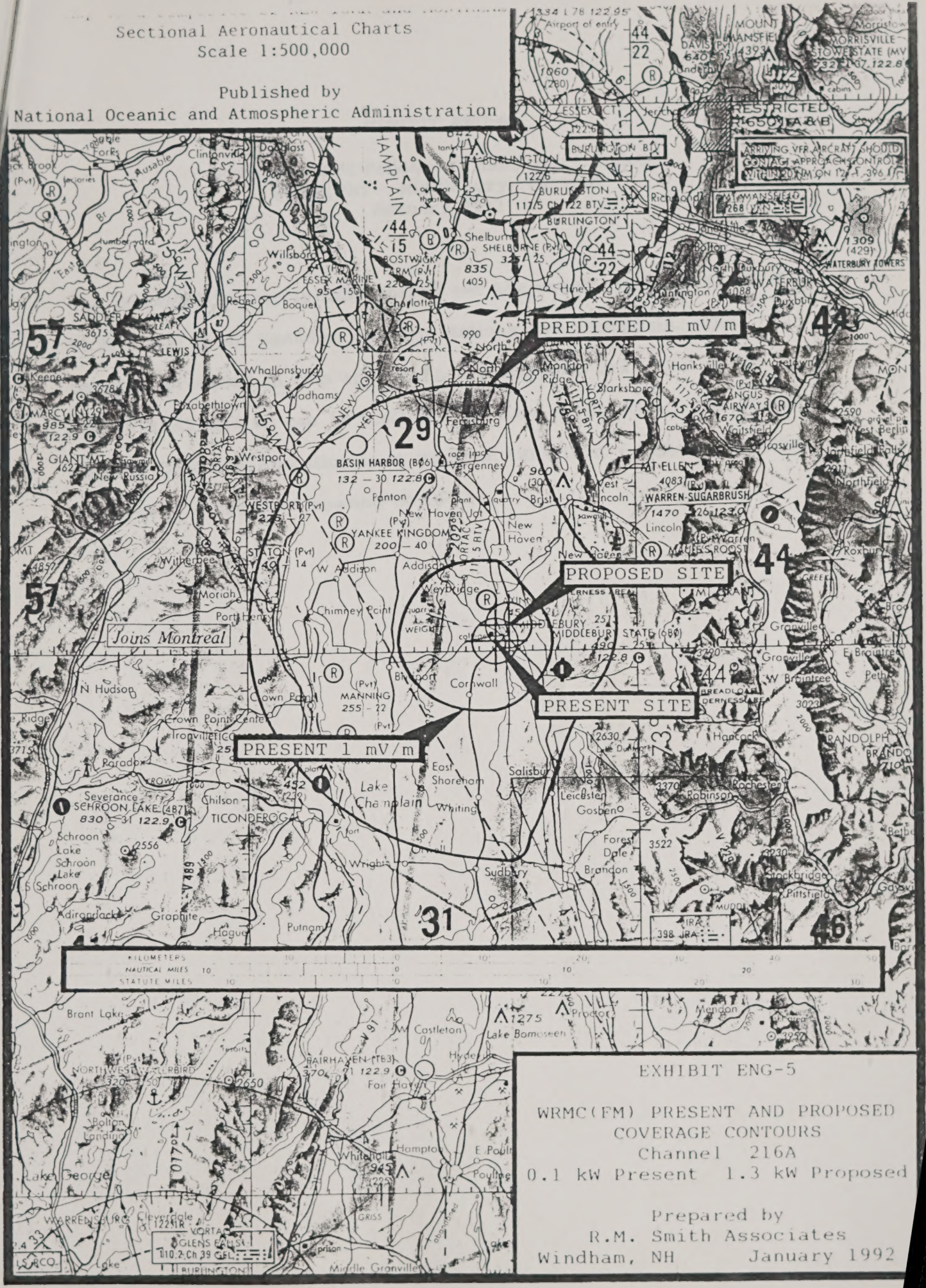


EXHIBIT ENG-5

WRMC(FM) PRESENT AND PROPOSED
COVERAGE CONTOURS
Channel 216A
0.1 kW Present 1.3 kW Proposed

Prepared by
R.M. Smith Associates
Windham, NH January 1992

EXHIBIT ENG-6

President and Fellows of Middlebury College
WRMC(FM) - Middlebury, Vermont
January 1992

The proposed facility is fully spaced per the requirements of 47 C.F.R. 73.207(b)(2) to all Canadian existing stations and allocations. The facilities proposed in this application are less than 3 kW ERP at 100 meters HAAT and so can be treated as a Class A allocation. The closest spacing Canadian Allocation is at Montreal (217C1) at a distance of 167.9 km against a required spacing of 164 km.

EXHIBIT ENG-7

President and Fellows of Middlebury College
WRMC(FM) - Middlebury, Vermont
January 1992

An allocation study was conducted on the proposed facilities to determine if any interference was caused by or received by the proposed operation.

Facilities Studied

WGDR(FM) - Plainfield, Vermont

Channel 216A	44-01-34N	73-09-44W
1.35 kW ERP	270 m HAAMSL	

WSPN(FM) - Saratoga Springs, NY

Channel 216A	43-05-55N	73-47-10W
0.25 kW ERP	30m HAAT	

WIUV(FM) - Castleton, VT

Channel 217A	43-36-29N	73-10-54W
0.23 kW ERP	155m HAAMSL	

New(FM) - Hanover, NH

Channel 217A	43-42-30N	72-09-16W
0.15 kW ERP	378m HAAT	

New(FM) - Blue Mountain Lake, NY

Channel 217A	43-52-18N	74-24-02W
0.078 kW ERP	527m HAAT	

WVTC(FM) - Randolph Center, Vermont

Channel 214A	43-56-07N	72-36-10W
0.30 kW ERP	62m HAAT	

WFTF(FM) - Rutland, Vermont

Channel 213A	43-37-09N	73-59-04W
0.72 kW ERP	-171m HAAT	

Calculation Method

The protected service contours of the proposed operation of WRMC(FM) and all of the facilities listed above were calculated using F.C.C. f(50,50) curves. The interference contours were calculated using the f(50,10) curves.

Results

As shown on the map included as Figure 1 of this exhibit, the proposed operation of WRMC(FM) neither receives nor generates any prohibited contour overlap with the facilities studied.

WRMC PREDICTED 40 dBu
WGDR 40 dBu
WGDR OPERATING SITE
WGDR 60 dBu
WVTC 60 dBu
WVTC OPERATING SITE
WVTC 60 dBu

EXHIBIT ENG-9

President and Fellows of Middlebury College
WRMC(FM) - Middlebury, Vermont
January 1992

The proposed facility is within 177 km of two existing channel 6 television facilities. The interfering contour (75 dBu f(50,10) per 47 C.F.R. 73.599 figure 2) from the proposed WRMC facility does not overlap the Grade B contour of either television station. As shown below the proposed facility is in full compliance with 47 C.F.R. 73.525.

WRGB-TV - Schenectady, NY

WRGB-TV is located at 42-38-12N, 73-59-45W and operates with 93.3 kW ERP at 548 meters AMSL. The distance from the proposed site to WRGB-TV is 168.5 km on a bearing of 203.9° True. In the direction of WRGB-TV, the WRMC(FM) proposed 75 dBu f(50,10) contour extends 10.6 km. In the direction of WRMC(FM), the WRGB-TV Grade B (47 dBu f(50,50)) contour extends 115 km. The combined distance of 125.6 km provides 42.9 km of contour separation.

CBMT-TV - Montreal, Quebec

CBMT-TV is located at 45-30-20N, 73-35-32W and operates with 100 kW ERP at 276 meters AMSL. The distance from the proposed site to CBMT-TV is 167.9 km on a bearing of 348.5° True. In the direction of CBMT-TV, the WRMC(FM) proposed 75 dBu f(50,10) contour extends 10.8 km. In the direction of WRMC(FM), the CBMT-TV Grade B (47 dBu f(50,50)) contour extends 100 km. The combined distance of 110.8 km provides 57.1 km of contour separation. The WRMC(FM) 75 dBu f(50,10) never crosses the U.S. and Canadian border.

EXHIBIT ENG-8

President and Fellows of Middlebury College
WRMC(FM) - Middlebury, Vermont
January 1992

The proposed facility is fully spaced per the requirements of 47 C.F.R. 73.207(b)(1) to all existing stations, proposed stations and allotments separated in frequency by 10.6 or 10.8 MHz. (53 or 54 channels). Listed below are all relevant allotments and facilities with their geographic corordinates and spacings in kilometers to the proposed WRMC facility:

			Required	Actual
WVMX(FM) 44-31-32N 72-48-54W	Stowe, Vermont	269A	10.0	52.0
New(FM) 43-50-17N 73-05-02W	Brandon, Vermont	270A	10.0	21.82
New(FM) 43-48-00N 73-05-25W	Brandon, Vermont	270A	10.0	25.78
New(FM) 43-46-56N 73-02-06W	Brandon, Vermont	270A	10.0	28.96
New(FM) 43-44-16N 73-01-36W	Brandon, Vermont	270A	10.0	33.84
New(FM) 43-44-09N 73-01-51W	Brandon, Vermont	270A	10.0	33.94

EXHIBIT ENG-10

President and Fellows of Middlebury College
WRMC(FM) - Middlebury, Vermont
January 1992

The proposed operation of the FM described in this application will utilize an existing tower. No change to the overall height, lighting, footprint nor guying of the tower is proposed.

The proposed construction was examined for its compliance with the Guidelines for Human Exposure to RF contained in F.C.C. Bulletin OST-65.

Parameters Utilized (Proposed WRMC(FM):

Effective Radiated Power: 2.6 kW

(1.3 kW Vert and 1.3 kW Horz)

Antenna Distance from Ground 24 meters

Parameters Utilized (Existing WCVM(FM):

Effective Radiated Power: 6.0 kW

(3.0 kW Vert and 3.0 kW Horz)

Antenna Distance from Ground 39 meters

Calculation Method:

$$S = \frac{(2.56)EIRP}{4(3.14)R^2}$$

where:

EIRP = 1.64 x ERP in milliWatts

R = Distance from antenna in cm

Results:

Proposed WRMC(FM)

$$\frac{(2.56)(1.64)(2{,}600\ W)(1000\ mW/W)}{(4)(3.14)((24\ m)(100\ cm/m))^2} = 0.151\ mW/cm^2$$

Existing WCVM(FM)

$$\frac{(2.56)(1.64)(6{,}000\ W)(1000\ mW/W)}{(4)(3.14)((39\ m)(100\ cm/m))^2} = 0.132\ mW/cm^2$$

Based upon all "worst-case" assumptions the combined ground level RF density of 0.283 mw/cm^2 is within the guideline limit of 1.0 mw/cm^2. The applicant realizes that levels in excess of the guidelines may exist near and/or within the antenna aperture and is prepared to take all steps necessary to limit worker exposure.

The applicant can foresee no way in which the proposed construction will negatively impact the environment.

STATEMENT OF QUALIFICATIONS

I, Robert M. Smith Jr. of Windham, New Hampshire, state:

That I was retained by the applicant to prepare the application and exhibits contained herein.

That I am an experienced and qualified radio broadcast engineer;

That I attended Union College in Schenectady, New York, where I majored in Electrical Engineering and Computer Science;

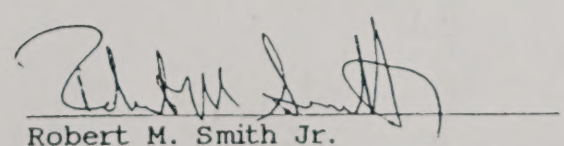
That I have held a First Class Radiotelephone license since 1971, and presently hold F.C.C. General Class Radiotelephone license number PG-1-7016, and am certified by the Society of Broadcast Engineers as a Senior Broadcast Engineer (Certificate # 2422);

That I have been employed in the field of Broadcast Engineering since 1971 and have served as a technical consultant to numerous radio station since 1972;

That I am President of R.M. Smith Associates, a broadcast technical consulting firm in Windham, New Hampshire;

That my qualifications are a matter of record with the Federal Communications Commission, having filed applications and technical measurements with them on numerous occasions in the past;

That I prepared the technical data contained herein, and that all of the data and calculations are true and correct to the best of my knowledge and belief.



Robert M. Smith Jr.

DO NOT REMOVE CARBONS

Form Approved OMB No. 2120-0001

U.S. Department of Transportation
Federal Aviation Administration

NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION

Aeronautical Study Number

1. Nature of Proposal

A. Type
- ☐ New Construction
- ☒ Alteration

B. Class
- ☒ Permanent
- ☐ Temporary (Duration _____ months)

C. Work Schedule Dates
- Beginning 6/92
- End 12/92

2. Complete Description of Structure

A. Include effective radiated power and assigned frequency of all existing, proposed or modified AM, FM, or TV broadcast stations utilizing this structure.

B. Include size and configuration of power transmission lines and their supporting towers in the vicinity of FAA facilities and public airports.

C. Include information showing site orientation, dimensions, and construction materials of the proposed structure.

a. FM 1.3 kW ERP proposed
FM 3.0 kW ERP existing

Proposed 91.1 MHz.
Existing 100.9 MHz.

Existing tower, no change in height proposed

(if more space is required, continue on a separate sheet.)

3A. Name and address of individual, company, corporation, etc. proposing the construction or alteration. *(Number, Street, City, State and Zip Code)*

(802) 388-3711
area code Telephone Number

Middlebury College
Middlebury, Vermont 05753

Attn: James D. Ross

B. Name, address and telephone number of proponent's representative if different than 3 above.

Robert M. Smith Jr.
R.M. Smith Associates
8 Deer Run Road
Windham, NH 03087

4. Location of Structure

A. Coordinates *(To nearest second)*	B. Nearest City or Town, and State	C. Name of nearest airport, heliport, flightpark, or seaplane base
	Middlebury, VT	Middlebury State Arprt
44° 01' 34" Latitude	(1) Distance to 4B: 0.5 Miles	(1) Distance from structure to nearest point of nearest runway: 4.5 Mi.
73° 09' 44" Longitude	(2) Direction to 4B: 185° True	(2) Direction from structure to airport: 135° True

5. Height and Elevation *(Complete to the nearest foot)*

A. Elevation of site above mean sea level	800
B. Height of Structure including all appurtenances and lighting *(if any)* above ground, or water if so situated	141
C. Overall height above mean sea level *(A + B)*	941

D. Description of location of site with respect to highways, streets, airports, prominent terrain features, existing structures, etc. Attach a U.S. Geological Survey quadrangle map or equivalent showing the relationship of construction site to nearest airport(s). *(if more space is required, continue on a separate sheet of paper and attach to this notice.)*

On Chipman Hill, 0.5 miles north of downtown Middlebury Vermont

Notice is required by Part 77 of the Federal Aviation Regulations (14 C.F.R. Part 77) pursuant to Section 1101 of the Federal Aviation Act of 1958, as amended (49 U.S.C. 1101). Persons who knowingly and willingly violate the Notice requirements of Part 77 are subject to a fine (criminal penalty) of not more than $500 for the first offense and not more than $2,000 for subsequent offenses, pursuant to Section 902(a) of the Federal Aviation Act of 1958, as amended (49 U.S.C. 1472(a)).

I HEREBY CERTIFY that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to obstruction mark and/or light the structure in accordance with established marking & lighting standards if necessary.

Date	Typed Name/Title of Person Filing Notice	Signature
1/28/92	Robert M. Smith Jr.	

FOR FAA USE ONLY *(FAA will either return this form or issue a separate acknowledgement)*

The Proposal:

- ☐ Does not require a notice to FAA.
- ☐ Is not identified as an obstruction under any standard of FAR, Part 77, Subpart C, and would not be a hazard to air navigation.
- ☐ Is identified as an obstruction under the standards of FAR, Part 77, Subpart C, but would not be a hazard to air navigation.
- ☐ Should be obstruction marked, highlighted per FAA Advisory Circular 70/7460-1, Chapter (s)
- ☐ Obstruction marking and lighting are not necessary.

Remarks:

Supplemental Notice of Construction (FAA Form 7460-2) is required any time the project is abandoned, or if:
- ☐ At least 48 hours before the start of construction.
- ☐ Within five days after the construction reaches its greatest height.

This determination expires on _____ unless:
(a) extended, revised, or terminated by the issuing office.
(b) the construction is subject to the licensing authority of the Federal Communications Commission and an application for a construction permit is made to the FCC on or before the above expiration date. In such case the determination expires on the date prescribed by the FCC for completion of construction, or on the date the FCC denies the application.

NOTE: Request for extension of the effective period of this determination must be postmarked or delivered to the issuing office at least 15 days prior to the expiration date.

If the structure is subject to the licensing authority of the FCC, a copy of this determination will be sent to that Agency.

COPY

Issued in	Signature	Date

FAA Form 7460-1 (8-85)

DO NOT REMOVE CARBONS

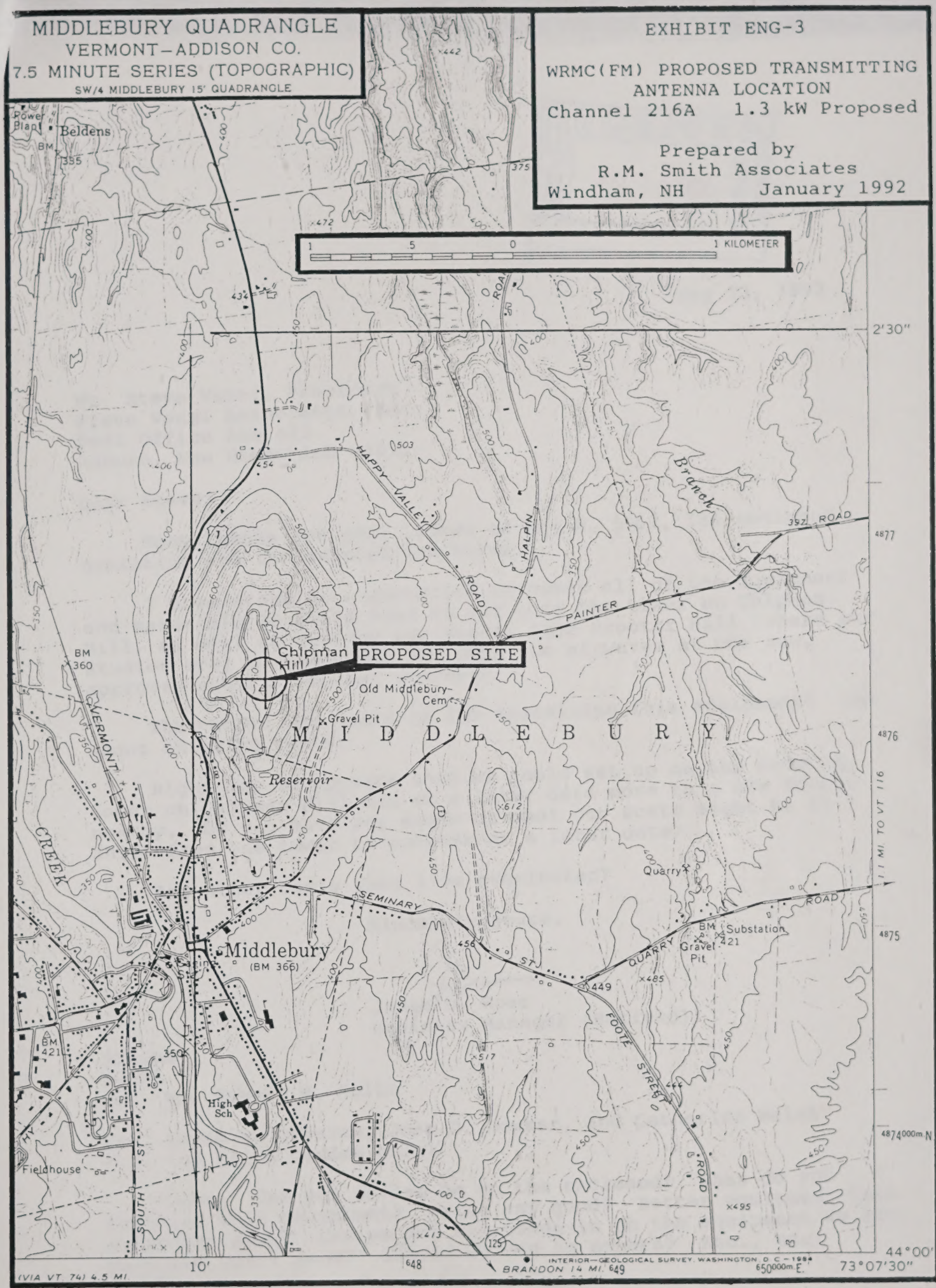
Jim:

Smith said this does not go to FCC (He already sent this to the FAA, and this was only a copy for your info.)

B.
Betty

FEB 13 1992

COPY


MIDDLEBURY QUADRANGLE
VERMONT-ADDISON CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
SW/4 MIDDLEBURY 15' QUADRANGLE
EXHIBIT ENG-3
WRMC(FM) PROPOSED TRANSMITTING ANTENNA LOCATION
Channel 216A 1.3 kW Proposed
Prepared by
R.M. Smith Associates
Windham, NH January 1992
1 .5 0 1 KILOMETER
PROPOSED SITE
Chipman Hill
Old Middlebury Cem
Gravel Pit
MIDDLEBURY
Reservoir
Middlebury
(BM 366)
Beldens
Power Plant
HAPPY VALLEY ROAD
HALPIN ROAD
PAINTER ROAD
Branch
VERMONT
CREEK
SEMINARY ST
QUARRY ROAD
FOOTE STREET
SOUTH ST
Quarry
Substation
Gravel Pit
High Sch
Fieldhouse
2'30"
10'
44°00'
73°07'30"
(VIA VT. 74) 4.5 MI.
BRANDON 14 MI.
INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D.C.—1984

RECEIVED
MAY 13 1992

May 13, 1992

Mr. Steve Vanni, President
Steve Vanni Associates, Inc.
Post Office Box 422
Auburn, New Hampshire 03032

Dear Steve:

Many thanks for your letter of May 8, 1992, its enclosed quotation and the related brochures.

I understand your quotation to cover all of the equipment and materials we would need to get onto the tower on Chipman Hill, as well as getting our signal from Proctor Hall (where our studios are) to the tower and onto the airwaves at our new, approved power. Is that correct?

What would the costs be for installing this equipment? How about shipping costs?

Right now it appears that we could set up on the existing tower on Chipman Hill and at a later date move to a new tower nearby. Do you have any sense of what our costs might be to shift from one tower to another at a later date?

Any other costs that I've overlooked?

Sincerely yours,

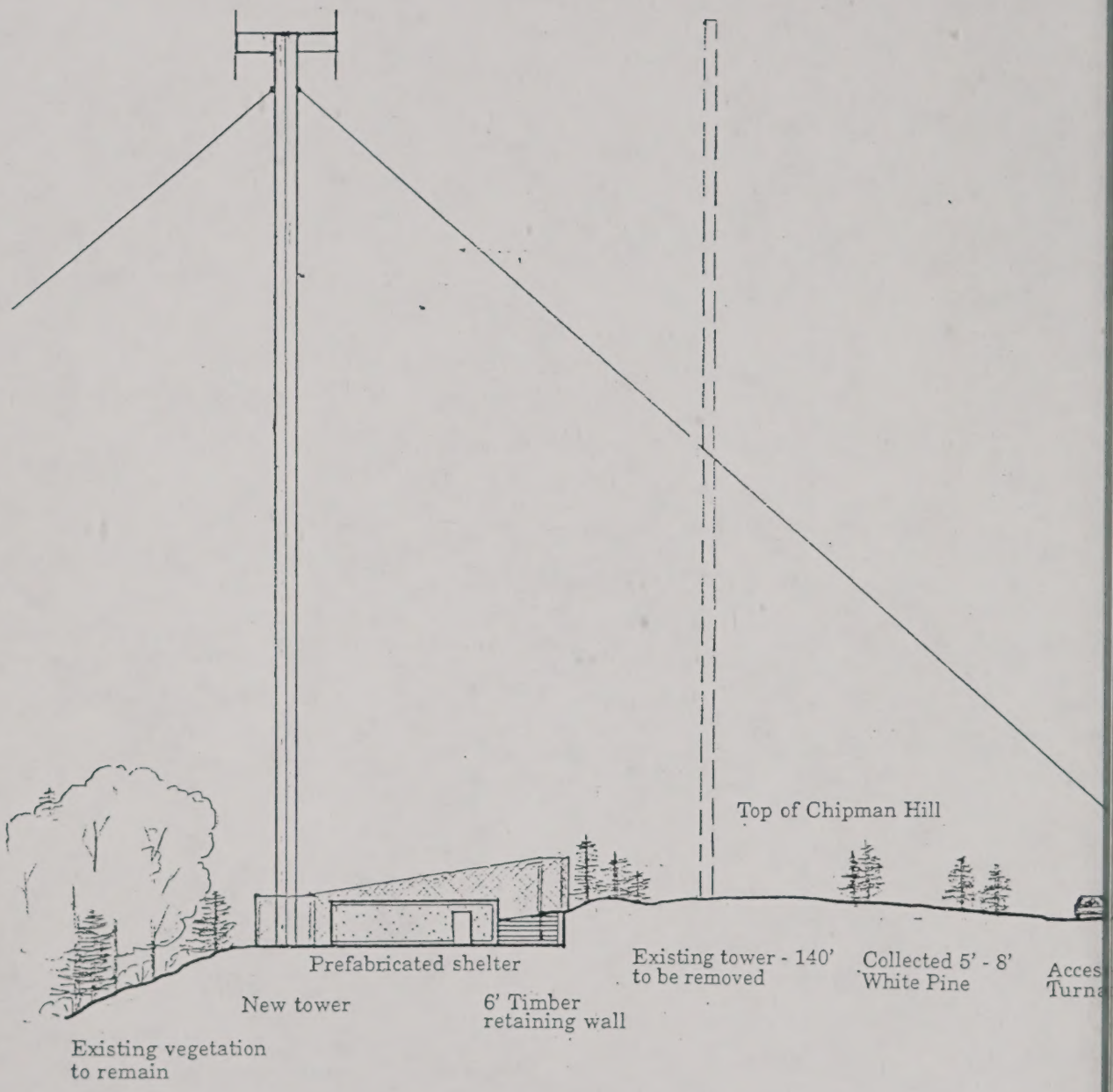
James D. Ross
Business Manager (Retired)

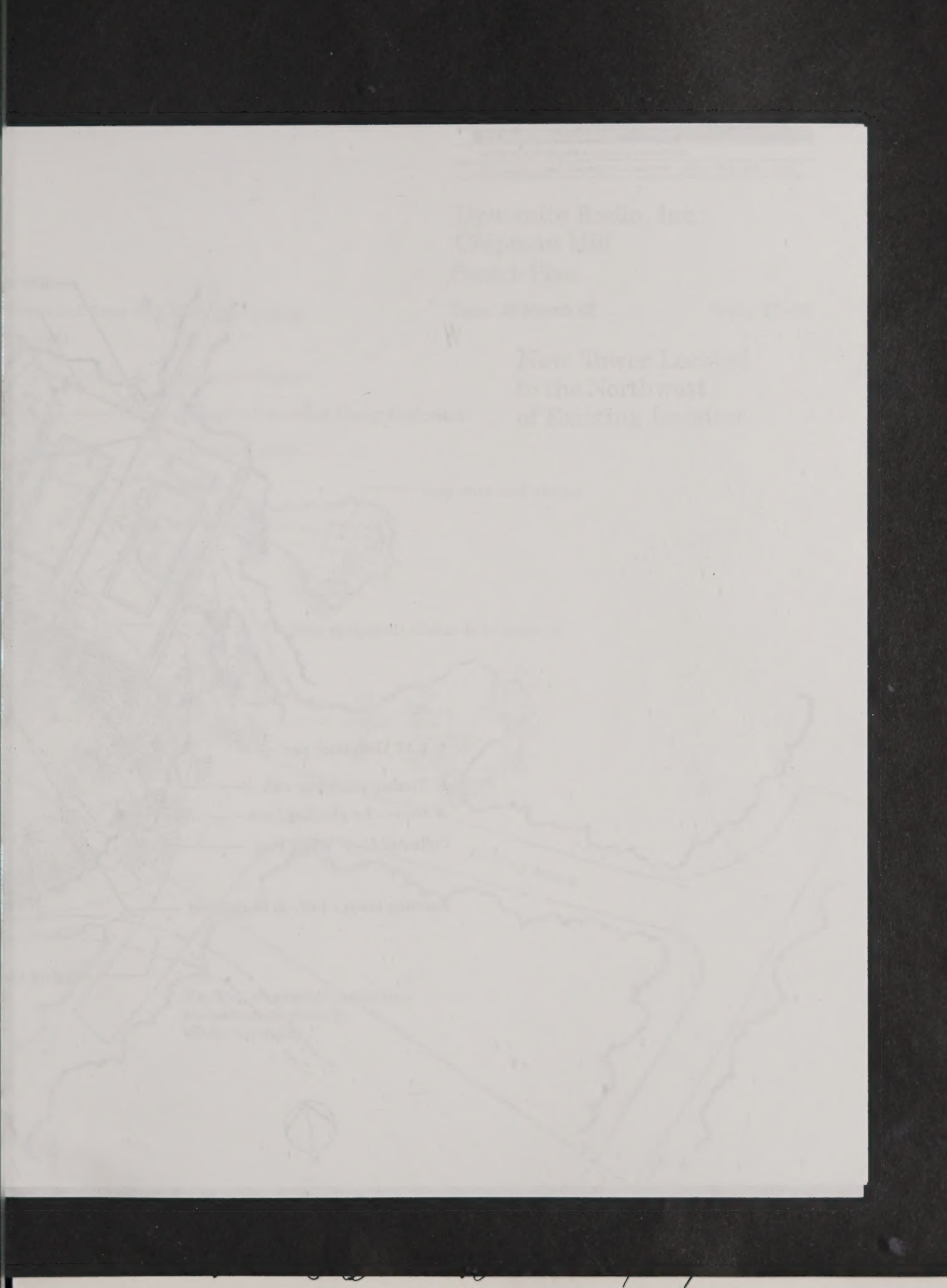
JDR:bd
Z-574
cc: Mr. Robert M. Smith

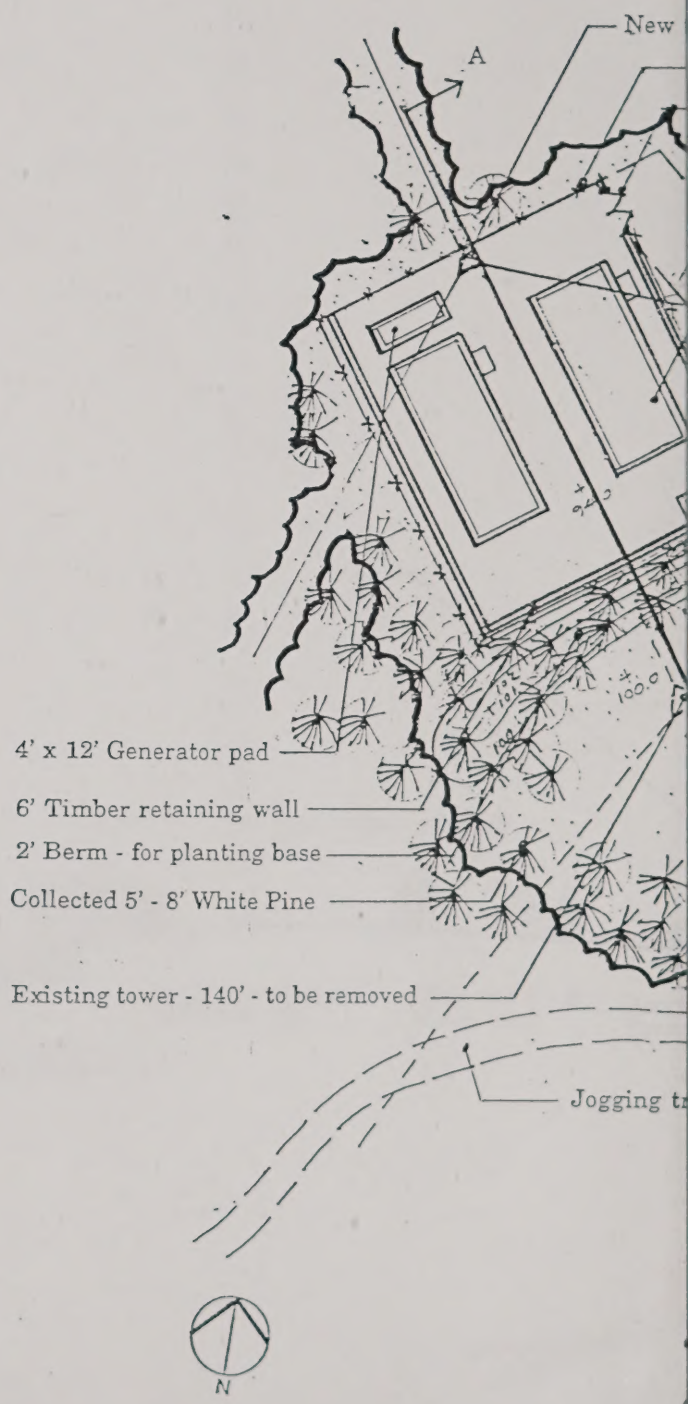
bc: David W. Ginevan, John D. Bowker, and Catherine Walsh
P.S. (on blind copies only)

John: Can you advise us on the enclosed? What do you think of this equipment? Price any good? Better equipment than we really need? Can we get any trade-in on the equipment we now have and won't need? Should we bid to others? Etc., etc. Thanks.

James D. Ross


Top of Chipman Hill
Prefabricated shelter
Existing tower - 140'
to be removed
Collected 5' - 8'
White Pine
New tower
6' Timber
retaining wall
Existing vegetation
to remain




New
A
4' x 12' Generator pad
6' Timber retaining wall
2' Berm - for planting base
Collected 5' - 8' White Pine
Existing tower - 140' - to be removed
Jogging tr
N

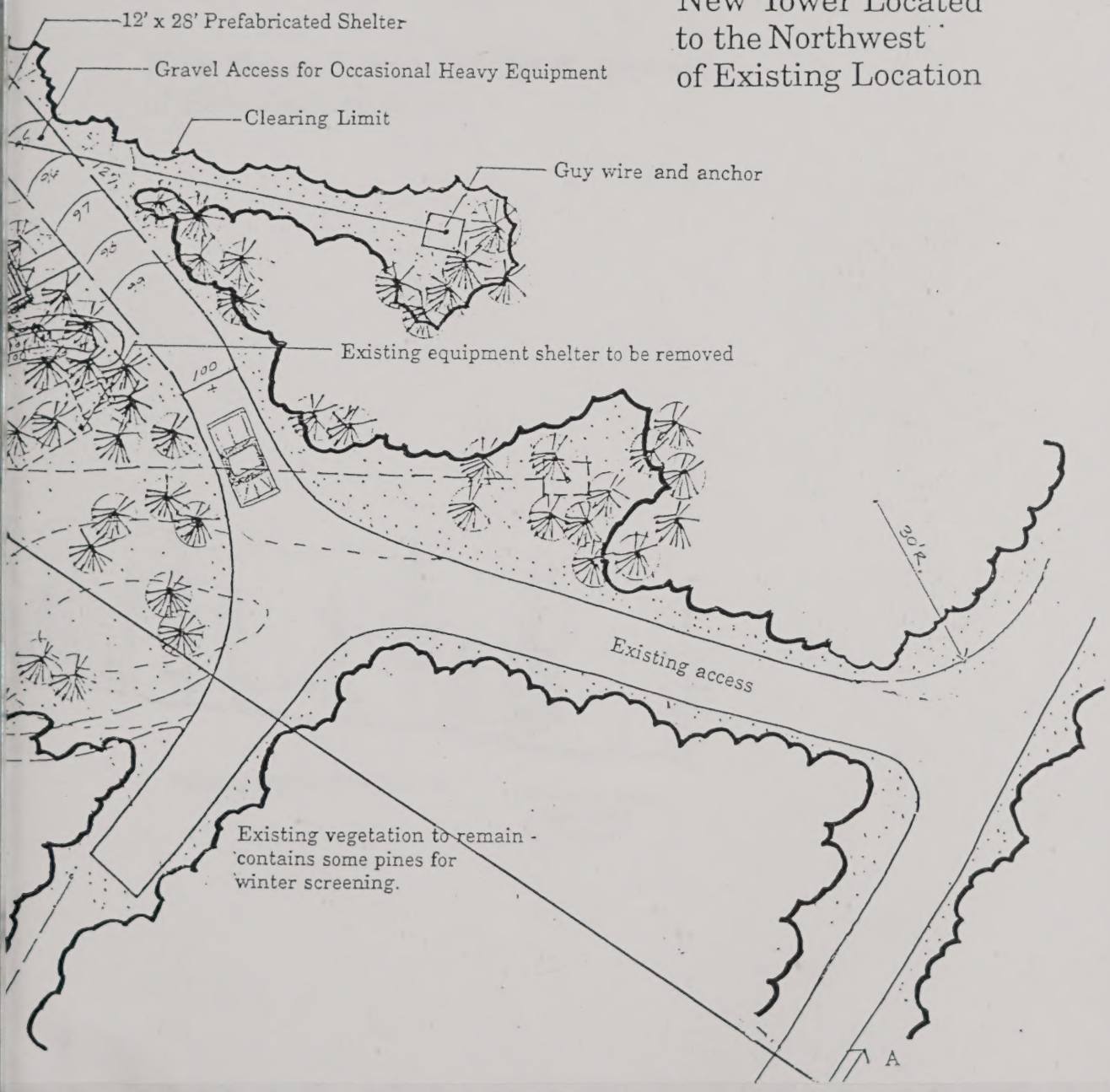
T. J. Boyle and Associates
landscape architects • planning consultants
301 college street • burlington • vermont • 05401 • 802 • 658 • 3555

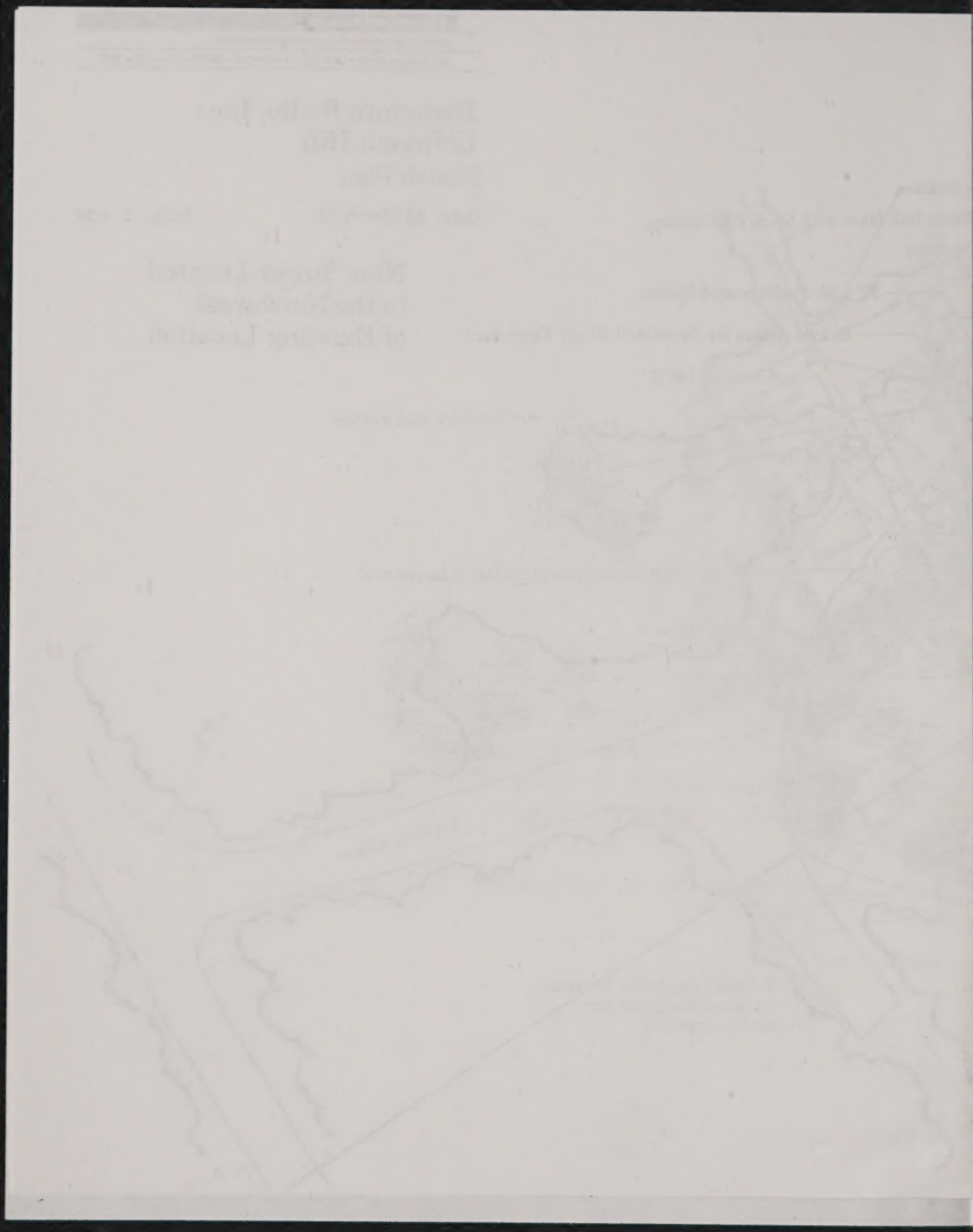
Dynamite Radio, Inc.: Chipman Hill
Sketch Plan

Date: 25 March 92 Scale: 1" = 20'

er location
Chain link fence with black vinyl coating
— Gate

New Tower Located to the Northwest of Existing Location





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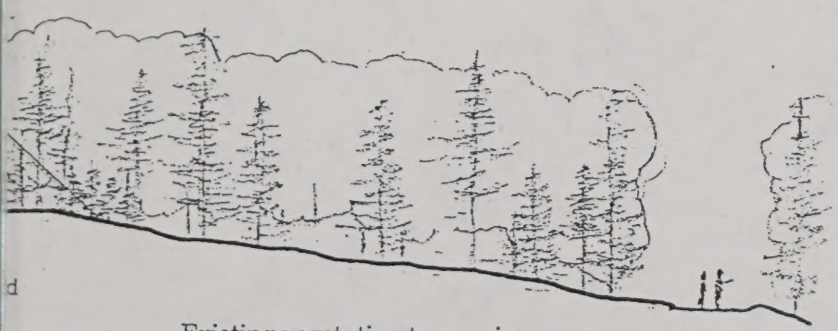
landscape architects • planning consultants
301 college street • burlington • vermont • 05401 • 802 • 658 • 3555

Dynamite Radio, Inc.:
Chipman Hill
Sketch Section

Date: 25 March 92 Scale: 1" = 20'

New Tower Located to the Northwest of Existing Location



FAX 603-894-5546

July 30 1992

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JUL 30 1992

Bob Smith:

I've talked with Tony Neri (father) and Anthony Neri (son) who control existing tower on Chipman Hill and new tower to be erected by Contel, assuming legal problems are cleared up. It looks like this could take at least 6 months and probably longer.

Could you give young Tony a call since I said we were using you and he sounded like he could use your services also.

I think we'd best wait for the new tower and transmitter space to make our move.

Enclosed is a photocopy of a part of our second proposal from Marionics, Inc. I understand that they would provide means for us to "see" in our Proctor studios what is happening on Chipman Hill. Is this included in Steve Vonni proposal?

If not, how much more would we need ($) to add this to Steves proposal?

Young Tony is also talking about our multi-plexing with his station in order to save tower space. Is this possible? How much more ($)?

pc: Steve Vanni (FAX-603-483-0512)
DWG
Cathy Walsh
John Bowker

Jim Ross
7-30-92
Middlebury College

K 101 FM
WGTK 100.9 ONLY THE GOOD STUFF!
ANTHONY NERI
General Manager
P.O. BOX 590 • MIDDLEBURY, VT 05753
(802) 388-4101

JUN 29 1992

MARIONICS INC.
P.O. Box 4732
Toms River, New Jersey 08754-4732
(908) 240-3119
(908) 240-3133 FAX

PROPOSAL

Proposal: 206251

Date: June 25, 1992

Customer: Middlebury College

Address: Middlebury, VT.

Accepted_____

PROPOSAL TO PROVIDE EQUIPMENT AND INSTALLATION

Marionics will provide the following equipment:

ITEM	QTY	DESCRIPTION
1	1	Shively 6813-2, 2-bay antenna w/deicers
2	1	QEI F2000, Solid State 2 kw transmitter
3	1	QEI 695 Exciter
4	1	Burk TC 8 remote control unit
5	100'	Cablewave HCC78-50J 7/8" Air Coax
6	1	Cablewave 738230, 7/8" EIA GP Connector
7	1	Cablewave 738229, 7/8" EIA GB Connector
8	2	Cablewave 514542-001, Round Member Adaptor
9	2	Cablewave 920981-007, Hanger Kit
10	1	Cablewave 910307, 7/8" Hoisting Grip
11	3	Cablewave 713796-005, 7/8" Ground Kit
12	1	Cablewave 920433,7/8" Wall Feed Through
13	1	Cablewave 920188, Nitrogen Tank Regulator Kit
14	1	Marti STL-10, Stereo STL System
15	2	Scala PR-450U, STL Antennas
16	100'	Cablewave FLC12-50J, 1/2" Foam Coax
17	2	Marti PG-2B, Jumper Cable, "N" Male Connector
18	3	Cablewave 713796-003, 1/2" Ground Kits
19	1	Cablewave 920432-002, 1/2" Wall Feed Through
20	3	Cablewave 514542-001, Round Member Adaptor
21	3	Cablewave 920981-010, 1/2" Hanger Kit
22	2	Cablewave 738301, 1/2" "N" Female Connectors

In addition to the equipment specified above, Marionics Inc. agrees to provide all technical and supervisory support necessary to oversee the construction of WRMC's new transmitter site at

Chipman Hill. In addition, Marionics will wire the audio flow at the studio and transmitter ends, interconnect all terminal equipment and make all RF connections.

As a State of Vermont Licensed Electrical Contractor (EM-3368), Marionics will provide all necessary materials and labor to connect the transmitting equipment to the buildings AC supply.

Prior to starting the WRMC project, WRMC will approve all items in writing, and submit such approval to Marionics.

Marionics will act as general contractor and coordinate with Dynamite Radio, Inc., Vermont Electric, and Middlebury College to insure a speedy completion of the project.

The WRMC transmitter site will be constructed in accordance with the Construction Permit granted by the FCC. Marionics will be responsible for completing all required FCC forms. Middlebury will be responsible for any local permits.

Upon completion of the project, Marionics will conduct a Proof of Performance Test with WRMC's Chief Engineer present, to comply with FCC Regulations and to insure the system meets specifications.

As-built construction and wiring diagrams will be provided.

Marionics will provide staff training in the operation of the new system.

WARRANTY

Marionics Inc. provides a 90 day warranty on its own supplied equipment, parts and labor. Equipment manufacturers warranty as stated. An additional extended warranty/service contract is available.

There are no oral understandings and agreements relative to this acceptance which are not fully expressed herein. All changes must be in writing and be approved by both parties. Any changes may be subject to additional charges.

→ WRHC/Matt Hunter FYI

RECEIVED AUG 6 1992

R. M. SMITH ASSOCIATES
BROADCAST TECHNICAL CONSULTANTS
8 DEER RUN ROAD WINDHAM, NEW HAMPSHIRE 03087
(603) 894-6968 FAX (603) 894-5546

AUG 0 6 1992 R.

pc: DWG
Cathy W.
John Bowker

August 4, 1992

Mr. James Ross
Business Office
Middlebury College
Middlebury, VT 05753

Dear Jim:

After an initial communication problem (my FAX ran out of paper just at the end of your FAX Cover Sheet) I have received and reviewed your complete letter and quotation from Marionics.

My comments:

I have tried unsuccessfully to reach Tony Neri, and will continue to try until successful. I walked up to the Chipman Hill tower about two months ago, and I believe there is room for your antenna on the present structure. We can of course wait for the new tower if you don't want to go through the hassle of building then moving.

The possibility of multiplexing your signal into the same antenna as WGTK is interesting. The use of a common antenna does save tower space, but it does also add considerable cost for filters and combiners. I'll get some budget numbers from Shively and forward them to you.

The proposal from Steve Vanni did not contain a remote control unit. You already own and use such a unit between the studio and your present transmitter site. It was my intention to move the existing unit to Chipman Hill.

I have only seen the QEI transmitter quoted by Marionics at the NAB convention in Las Vegas. I don't believe they have more than a couple of these units in service. I was not impressed.

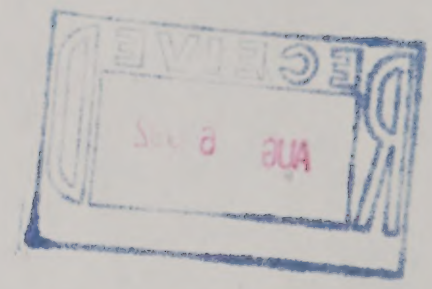
The services to be provided by Marionics are the standard services required and were included in the Steve Vanni proposal.

Any other questions---please call or FAX.

I hope you are enjoying the summer!

Regards,

Bob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NOV 13 1992

Kathy Walsh
Dir. of Student Affairs
Middlebury College
Middlebury Vt 05753

November 13, 1992

Dear Kathy,

Just a note of thanks for your prompt attention and cooperation regarding our 'crisis' yesterday.

Apparently the letter you faxed was exactly what our attorney needed to demonstrate to The F. C. C. that this was ancient history.

Thanks again for the support!

Best wishes,

Mark T. Brady

PRO RADIO, INC. P.O. BOX 150 MIDDLEBURY, VT 05753 (802) 388-92FM

Cathy Walsh

Please sign at the clip. FCC can't find their copy, per Cathy Walsh.

To: David Ginevan
cc: Jim Ross

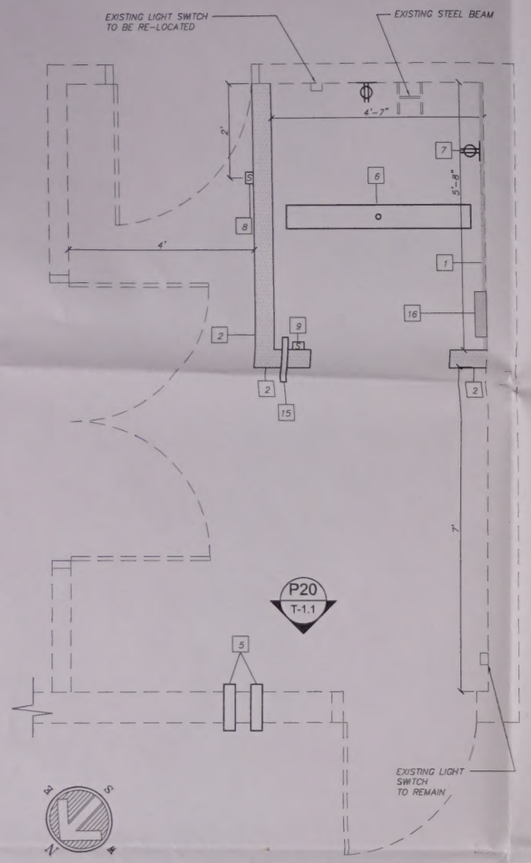
From: Cathy Walsh CW

Re: WRMC/Resubmission of FCC Form 302

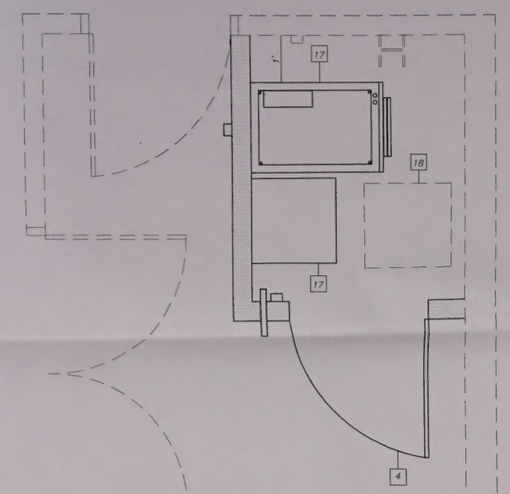
Date: December 9, 1992

A representative of the FCC contacted me this week, requesting that we resubmit a copy of Form 302. Apparently, they cannot accept a photocopy of your signature. Would you please sign (again) on the page indicated by the paper clip on the side, and return these documents to me. I will forward them to the FCC, along with a copy of the original cover letter.

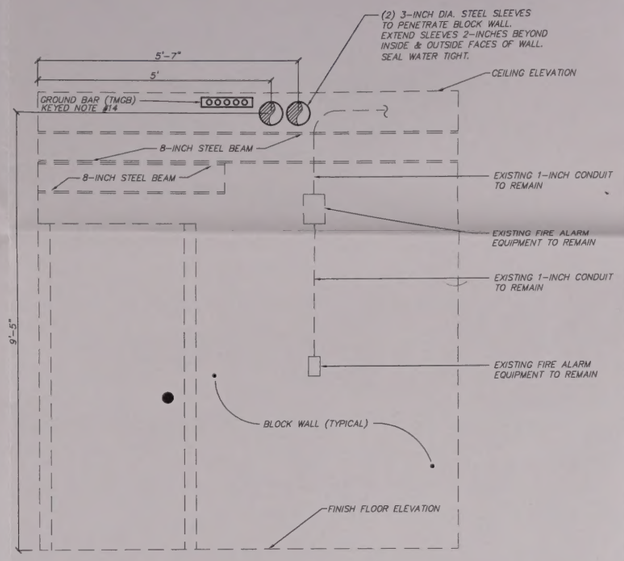
Thanks for your help.



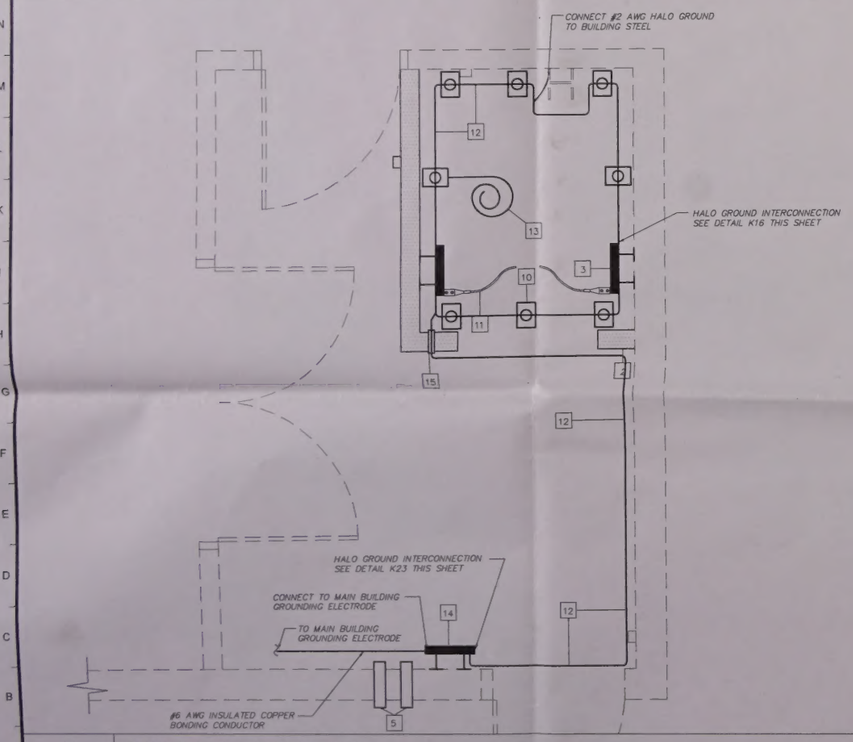
P1	PLAN VIEW - RADIO ROOM BUILD-OUT
3/4" = 1'-0"	RATIO = 1:16



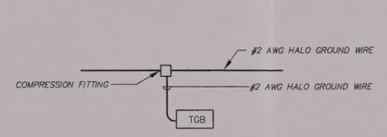
P10	PLAN VIEW - EQUIPMENT LAYOUT
3/4" = 1'-0"	RATIO = 1:16



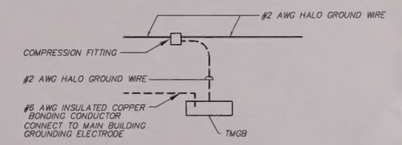
P20	ELEVATION VIEW
3/4" = 1'-0"	RATIO = 1:16



A1	PLAN VIEW - HALO GROUND SYSTEM
1/4"=1'-0"	RATIO = 1:24



K16	TGB HALO GROUND CONNECTION
NOT TO SCALE	



K23	TMGB GROUND INTERCONNECTION DETAIL
NOT TO SCALE	

GENERAL NOTES:

1) THE KEY TO PROTECTING EQUIPMENT FROM LIGHTNING DAMAGE AND NOISE GENERATION IS PROPER GROUNDING. HALO GROUNDING SYSTEMS CAN SERVE THE MINIMUM NEEDS OF MOST INSTALLATIONS. CERTAIN SITES MAY REQUIRE A MORE RIGOROUS SYSTEM DUE TO INCREASED LIGHTNING SUSCEPTIBILITY.

2) HALO GROUNDING SYSTEM: THE HALO GROUND SYSTEM CONSISTS OF A CONTIUOUS RUN OF #2 AWG INSULATED STRANDED COPPER WIRE MOUNTED AROUND THE PERIMETER OF THE INTERIOR WALL, NORMALLY JUST BELOW THE CEILING. AT VARIOUS SPACINGS, A 1/4" X 4" X 20" COPPER GROUND BAR IS WALL MOUNTED. THESE GROUND BARS ARE OMNI-CONNECTED TO THE HALO GROUND RING WITH #2 AWG STRANDED COPPER JUMPERS. THE HALO GROUND SYSTEM TO BE EXOTHERMICALLY WELDED TO THE BUILDING STEEL.
THE OBJECT IS TO PROVIDE A LOW IMPEDANCE JOINT TO ELIMINATE INTERMOD GENERATION AND GIVE MAXIMUM LIGHTNING PROTECTION.

3) GROUND DROP (EQUIPMENT): A #2 AWG (GREEN) STRANDED, TINNED COPPER GROUND WIRE SHALL BE ATTACHED TO ANY AND ALL EQUIPMENT, DOOR FRAMES, ELECTRICAL BOXES, LADDER RACKS, WALL FEED-THRU PLATES, FLOOR DRAINS WIRE MESH WALLS AND HEATING/COOLING EQUIPMENT. BOND GROUND DROP TO THE HALO GROUND SYSTEM.

4) CONDUIT GROUNDING: GROUNDING OF EACH CONDUIT BREAK, INCLUDING BUT NOT LIMITED TO CONDUIT COUPLINGS, JUNCTION BOXES, LIGHT FIXTURES, AND SERVICE EQUIPMENT WILL BE GROUNDED WITH MECHANICAL GROUND CLAMPS TO ELECTRICALLY BOND THE CONDUIT. THE BONDING WIRE WILL BE A MINIMUM OF #6 AWG GREEN INSULATED, EXCEPT #10 AWG IS ACCEPTABLE FOR LIGHT FIXTURES.

LEGEND:

- COPPER GROUND BAR
- TELECOMMUNICATIONS EQUIPMENT BACKBOARD
- SLEEVE THROUGH WALL
- DUPLEX RECEPTACLE, 120V, 20A
- S SINGLE POLE SWITCH, 120V,20A
- FLUORESCENT LIGHT
- EXISTING WALLS
- PROPOSED WALLS

CONVENTIONS:

- A1 / SCALE — GRID NUMBER IDENTIFIER ON EACH DRAWING
- A1 / T-1.1 — DETAIL IDENTIFIER; DRAWING ON WHICH DETAIL IS SHOWN
- A1 / T-1.1 — ELEVATION IDENTIFICATION ARROW; ELEVATION GRID NUMBER IDENTIFIER; DRAWING ON WHICH ELEVATION IS SHOWN
- A1 / T-1.1 — SECTION IDENTIFICATION ARROW; SECTION GRID NUMBER IDENTIFIER; DRAWING ON WHICH SECTION IS SHOWN
- 1 — DETAIL OR SECTION IDENTIFIER LOCATED ADJACENT TO TITLE ON EACH DETAIL

KEYED NOTES

1. 4' (H) X 8' (W) X 3/4" (D) AC FIREPROOF PLYWOOD; AS SHOWN. PAINTED WHITE. MOUNTED HORIZONTALLY 32-INCHES ABOVE F.F.
2. PROVIDE ALL MATERIALS AND INSTALL SHEET ROCK WALLS TO COMPLY WITH ALL LOCAL AND COLLEGE BUILDING CODES
3. TGB-TELECOMMUNICATIONS GROUNDING BUSBAR SEE DETAIL F-1, SHEET T-2.1
4. 3/4 HOUR HOLLOW METAL DOUBLE DOORS WITH FRAME, HINGES AND CLOSER. (DOOR SIZE TO BE 36" (W) X 7' (H)
5. 3-INCH STEEL SLEEVES TO PENETRATE BLOCK WALL. EXTEND SLEEVES 2-INCHES BEYOND INSIDE AND OUTSIDE FACES OF WALLS. SEAL WATERTIGHT
6. 2 LAMP STRIP FIXTURE WITH WIRE GUARD
7. 120V 20 AMP CONVENIENCE OUTLET. PLACE 15-INCHES A.F.F.
8. NEW LOCATION OF RE-LOCATED LIGHT SWITCH. PLACE CENTERLINE OF SWITCH 48-INCHES ABOVE F.F.
9. NEW LIGHT SWITCH. PLACE CENTERLINE OF SWITCH 48-INCHES ABOVE F. F.
10. SPACER HANGER, 2-FOOT ON CENTER (TYP.) SEE DETAIL Y9, SHEET T-2.1
11. GROUND STRAP
12. #2 HALO GROUND INSULATED BONDING CONDUCTOR
13. EQUIPMENT GROUND DROP, #2 STRANDED GREEN (REFER TO GENERAL NOTE #3)
14. TMGB – MAIN TELECOMMUNICATIONS GROUNDING BUSBAR SEE DETAIL 5-1, SHEET T-2.1
15. (1) 1.5-INCH STEEL SLEEVE FOR FEED THRU FOR ACCESS BEYOND THE NEW EQUIPMENT ROOM
16. MAIN FUSE BOX
17. PROPOSED EQUIPMENT RACKS
18. HVAC ROOF MOUNT PACKAGE (TO BE DETERMINED)

CONTRACTOR TO PROVIDE AND INSTALL ALL EQUIPMENT AND HARDWARE AS NOTED ON THESE PRINTS INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
ELECTRICAL FIT UP, HVAC FIT UP, CONDUITS, WAVEGUIDE AND EQUIPMENT ROOM FIT-UP AS REQUIRED.

NO.	REVISION / ISSUE	DATE

OWNER:
MIDDLEBURY COLLEGE

PROJECT TITLE:
RADIO ROOM INSTALLATION

DRAWING TITLE:
FLOOR PLANS AND DETAILS

DATE:	DRAWING NO.
OCTOBER 1999	MIDD-RR-1
DRAWN BY: TPB	SHEET NUMBER: T-1.1

James D. Ross
RD 2, Box 540
Middlebury, Vermont 05753
(802) 462-2872

November 11, 1994

Mr. Fred S. Dunnington
Town Planner
Town of Middlebury
94 Main Street
Middlebury, VT 05753

Dear Fred:

We certainly want to thank you for the fine letter of October 24th concerning WRMC. You were great to take the time to cover the radio tower project so thoroughly which I'm sure will help our cause.

Again, thanks very much.

Sincerely,

James D. Ross

cc: Betty Wheeler
David W. Ginevan
Howie Young
Tiffany Sargent

Federal Communications Commission
Restricted Permit
P.O. Box 358295
Pittsburgh, PA. 15251-5295

WRMC-FM
Drawer 29
Middlebury College
Middlebury, VT. 05753

To Whom It May Concern,

This letter certifies that the FCC Restricted Radiotelephone Operator Permit being applied for will only be used at a non-commercial educational broadcast station. Please waive the $35.00 application fee. I understand that if I ever accept a position at a commercial radio station, I will be required to pay the $35.00 fee.

Sincerely,

Dear WRMC DJ,

Please take a few minutes to look over and sign the enclosed FCC license application. The Restricted Radiotelephone Operator Permit is required by federal law and, fortunately, free for college students. Fill out the lines marked 1 through 6. Also fill in your name, signature and the date at the bottom section of the form. Please use your Middlebury College address on the permit application. To insure that nothing gets lost, **do not detatch any part of the form**. You must also print and sign your name on the enclosed letter which certifies you will only operate on non-commercial college or public radio stations. This letter will also be sent to the FCC, and will exempt you from paying the $35 license fee.

Also enclosed is a copy of the WRMC Operations Manual. It is required that all WRMC DJs read it and sign the certification on the last page. The manual contains a great deal of specific items that you will be held responsible for and it is in your own interest to read it carefully. Please return the entire application, certification letter and signed Operations Manual certification to box 2662 by **Friday, April 1**. The materials will be sent to the FCC on the following Monday, and anyone who does not return the required information by then will lose all operator privileges. Do not expect to receive the official license in your mail. All permits will be returned to WRMC where they must, by law, be kept on file. If there are any questions or comments, please call me at extension 3925.

Thank you,

Jesse Cunningham

Jesse Cunningham
Station Manager